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 DICTIONARY FILE UPDATES: 30 JAN 2006 HIGHEST RN 873057-98-8

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 * available and contains the CA role and document type information. *
 *

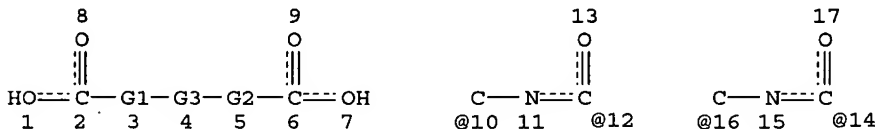
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=> d que sta l22

L15 STR



REP G1=(1-3) 10-2 12-4

REP G2=(1-3) 14-4 16-6

REP G3=(8-20) C

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 11

CONNECT IS E2 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L22 98 SEA FILE=REGISTRY SSS FUL L15

100.0% PROCESSED 302877 ITERATIONS

98 ANSWERS

SEARCH TIME: 00.00.08

=> b hcap

FILE 'HCAPLUS' ENTERED AT 14:55:44 ON 31 JAN 2006
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FILE COVERS 1907 - 31 Jan 2006 VOL 144 ISS 6
FILE LAST UPDATED: 30 Jan 2006 (20060130/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all fhitr 138 tot

L38 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:1051478 HCAPLUS
DN 142:205240
ED Entered STN: 08 Dec 2004
TI Stable spherical hollow particles composed of bola-form amides via non-covalent interactions
AU Matsuzawa, Yoko; Kogiso, Masaki; Matsumoto, Mutsuyoshi; Shimizu, Toshimi; Shimada, Kayori; Itakura, Masanao; Kinugasa, Shinichi
CS Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, 305-8565, Japan
SO Journal of Materials Chemistry (2004), 14(24), 3532-3539
CODEN: JMACEP; ISSN: 0959-9428
PB Royal Society of Chemistry
DT Journal
LA English
CC 66-2 (Surface Chemistry and Colloids)
Section cross-reference(s): 34
AB Dipeptide-based bola-form amides, which self-assemble into fibrous structures under usual conditions, formed stable micrometer-sized hollow spheres directed by hydrophilic interfaces in aqueous solution. The chemical structure of the bola-form amide and the surface properties of the substrate proved to significantly affect the self-assembly process. Bis(N- α -amide-1-valyl-1-valine)1,n-alkane dicarboxylate (n = 10: (Val)2C10, 12: (Val)2C12) and bis(N- α -amide-1-isoleucyl-1-isoleucine)1,n-alkane dicarboxylate (n = 10: (i-Leu)2C10) produced hollow spheres, whereas (Val)2Cn (n = 7-9, 11) and bis(N- α -amide-1-valyl-1-methionine)C10 ((Val/Met)2C10) formed no spheres. Static light scattering measurements revealed that the rod-like micelles of (Val)2C10, (Val)2C12 and (i-Leu)2C10 were converted to the hollow spheres via vesicle-like intermediates. The vesicle-like intermediates gathered together to form the spherical hollow particles with the aid of the surface of hydrophilic glass substrates. On the other hand, (Val)2Cn (n = 7-9, 11) and (Val/Met)2C10 directly self-assembled into fibrous structures from rod-like micelles without passing through the vesicle-like intermediates. The carbon number of the spacer, bulkiness of the head groups and surface

properties of the substrate played critical roles in determining the self-assembly. FT-IR, XRD and DSC measurements revealed that the packing of the bola-form amides in the hollow spheres differed from that in the fibrous assembly. Mols. in the spheres were more tightly packed, as in the crystalline state, than those in fibrous structures.

ST spherical hollow particle bolaform amide noncovalent self assembly

IT Phase transition

(formation of stable spherical hollow sphere with bola-form amide)

IT Self-assembly

(formation of stable spherical hollow sphere with bola-form amide via)

IT Spheres

(hollow, vesicle; formation of stable spherical hollow sphere with bola-form amide)

IT Micelles

(nonionic; formation of stable spherical hollow sphere with bola-form amide)

IT 214075-06-6 214075-07-7 300593-94-6

300593-95-7 300593-96-8 300593-97-9

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)

(formation of stable spherical hollow sphere with bola-form amide)

IT 836613-03-7P 836613-04-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(formation of stable spherical hollow sphere with bola-form amide)

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD

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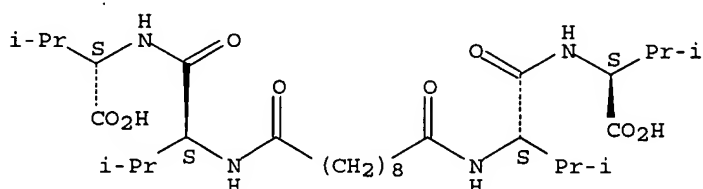
IT 214075-06-6

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
 (formation of stable spherical hollow sphere with bola-form amide)

RN 214075-06-6 HCAPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:311019 HCAPLUS

DN 140:309440

ED Entered STN: 16 Apr 2004

TI Fine spherical particles with satisfactory molecular orientation, spherical microcapsules comprising the same, and processes for producing these

IN Matsuzawa, Yoko; Matsumoto, Mutsuyoshi; Kogiso, Masaki; Shimizu, Toshimi

PA National Institute of Advanced Industrial Science and Technology, Japan

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C07K-0005/00

ICS C07K-0001/04; A61K-0047/48; A61K-0009/50; A61K-0007/00

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2004031214	A1	20040415	2003WO-JP12636	20031002 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 JP2004123663 A2 20040422 2002JP-0293533 20021007 <--
 JP2004358369 A2 20041224 2003JP-0160291 20030605 <--
 EP---1550670 A1 20050706 2003EP-0753983 20031002 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 PRAI 2002JP-0293533 A 20021007 <--
 2003JP-0160291 A 20030605 <--
 2003WO-JP12636 W 20031002 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004031214	ICM	C07K-0005/00
	ICS	C07K-0001/04; A61K-0047/48; A61K-0009/50; A61K-0007/00
	IPCI	C07K0005-00 [ICM,7]; C07K0001-04 [ICS,7]; A61K0047-48 [ICS,7]; A61K0009-50 [ICS,7]; A61K0007-00 [ICS,7]
	ECLA	A61K008/11C; A61K008/64; A61K047/48W8B; A61K047/48W14; A61Q019/00; B01J013/02 <--
JP2004123663	IPCI	C07K0005-062 [ICM,7]; A61K0007-00 [ICS,7]; A61L0027-00 [ICS,7]; C07K0001-04 [ICS,7]
	FTERM	4C081/BA03; 4C081/BB03; 4C081/CA241; 4C081/DA11; 4C081/DB02; 4C081/EA02; 4C083/BB26; 4C083/CC01; 4C083/FF01; 4H045/AA10; 4H045/AA20; 4H045/BA11; 4H045/BA62; 4H045/BA63; 4H045/EA15; 4H045/EA34; 4H045/EA65; 4H045/FA82 <--
JP2004358369	IPCI	B01J0013-04 [ICM,7]; A23L0001-00 [ICS,7]; A61K0009-50 [ICS,7]
	FTERM	4B035/LE01; 4B035/LG04; 4B035/LK14; 4B035/LP36; 4C076/AA64; 4C076/EE41H; 4C076/FF21; 4C076/GG26; 4G005/AA01; 4G005/BA20; 4G005/BB15; 4G005/DA01X; 4G005/DA05X; 4G005/DA16X; 4G005/DA17X; 4G005/DA18X; 4G005/DC01Z; 4G005/DC26Z; 4G005/DC41Z; 4G005/DE01X; 4G005/DE08X; 4G005/EA01; 4G005/EA02; 4G005/EA03; 4G005/EA05; 4G005/EA06 <--
EP---1550670	IPCI	C07K0005-00 [ICM,7]; C07K0001-04 [ICS,7]; A61K0047-48 [ICS,7]; A61K0009-50 [ICS,7]; A61K0007-00 [ICS,7]
	ECLA	A61K008/11C; A61K008/64; A61K047/48W8B; A61K047/48W14; A61Q019/00; B01J013/02 <--

OS MARPAT 140:309440

AB Disclosed are fine spherical particles with satisfactory mol. orientation which are based on film formation of a bola-form compound and are useful in the field of fine chems. such as functional materials and medical materials, the electronic/information field, etc.; spherical microcapsules having a hydrophilic core substance encapsulated therein; and processes for producing the spherical particles and the microcapsules. The fine spherical particles can be produced by immersing a hydrophilic substrate in an aqueous solution of a salt of the bola-form amide and precipitating fine particles

in an acid atmospheric The fine spherical particles and spherical microcapsules obtained have a particle diameter of 0.01 to 100 μ m. For example, an aqueous solution containing [bis(N- α -amido-L-valyl-L-valine)-1,10-decane]dicarboxylic acid and pyranine was prepared and hydrophilically treated glass plate was immersed in the solution and left to precipitate pyranine-encapsulated spherical microcapsules.

ST bola form amide spherical particle drug encapsulation; microparticle bisamidovalylvalinedecanedicarboxylate pyranine encapsulation

IT Ceramics

(as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT Glass, miscellaneous

Mica-group minerals, miscellaneous

Plastics, miscellaneous

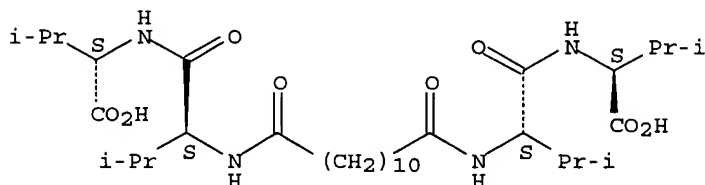
RL: MSC (Miscellaneous)

(as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)

IT Encapsulation

Microparticles
 (fine spherical particles with satisfactory mol. orientation of bola-form compound)
 IT Drug delivery systems
 (microcapsules; fine spherical particles with satisfactory mol. orientation of bola-form compound)
 IT 7631-86-9, Silica, miscellaneous
 RL: MSC (Miscellaneous)
 (as substrate for precipitating microparticles; fine spherical particles with satisfactory mol. orientation of bola-form compound)
 IT 6358-69-6, Pyranine 214075-07-7
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (fine spherical particles with satisfactory mol. orientation of bola-form compound)
 RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
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 (7) Senyorina Ltd; WO---9321913 A1 1993 HCAPLUS
 IT 214075-07-7
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (fine spherical particles with satisfactory mol. orientation of bola-form compound)
 RN 214075-07-7 HCAPLUS
 CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

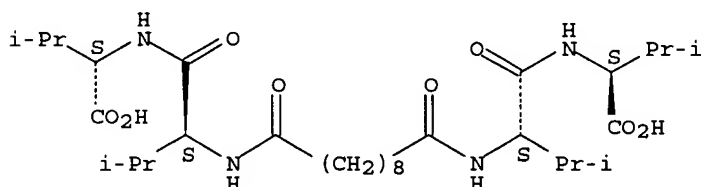


L38 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:295421 HCAPLUS
 DN 141:60325
 ED Entered STN: 12 Apr 2004
 TI Metal-complexed nanofiber formation in water from dicarboxylic valylvaline bolaamphiphiles
 AU Kogiso, Masaki; Okada, Yuji; Yase, Kiyoshi; Shimizu, Toshimi
 CS Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST), 1-1-1 Higashi, Tsukuba, Ibaraki, 305-8565, Japan
 SO Journal of Colloid and Interface Science (2004), 273(2), 394-399
 CODEN: JCISA5; ISSN: 0021-9797
 PB Elsevier Science
 DT Journal
 LA English
 CC 66-4 (Surface Chemistry and Colloids)
 Section cross-reference(s): 78

- AB Nanofiber formation of dipeptide-based bolaamphiphiles, bis (N- α -amide-L-valyl-L-valine) 1,n-alkane dicarboxylate (n=6, 8, 10, and 12) in water was analyzed by TEM, SEM, IR, and XRD. The bolaamphiphiles proved to be coordinated to divalent transition-metal cations, such as Co²⁺, Ni²⁺, Cu²⁺, and Zn²⁺, giving ppts., colloidal dispersions (loose hydrogels), and hydrogels upon self-assembly at 23 or 70 °C. Longer oligomethylene chains and strong interaction between the metal cations and the carboxylate anions are responsible for the hydrogel formation. Energy-filtering transmission electron microscopy (EF-TEM) and field-emission SEM (EF-SEM) images revealed that the colloidal dispersions and the hydrogels consist of a large number of nanofibers with widths of 15-20 nm and lengths of several micrometers. FT-IR and powder XRD measurement supported the existence of a β -sheet structure-based nanofibers complexing with metal cations.
- ST metal complexed nanofiber dicarboxylic valylvaline bolaamphiphile morphol
- IT Microstructure
Nanofibers
(formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-48-4D, Cobalt, complex with dicarboxylic valylvaline bolaamphiphile
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(cobalt (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-50-8D, Copper, complex with dicarboxylic valylvaline bolaamphiphile
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(copper (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 214075-05-5D, complex with metal ion 214075-06-6D, complex with metal ion 214075-07-7D, complex with metal ion 300593-97-9D, complex with metal ion
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-02-0D, Nickel, complex with dicarboxylic valylvaline bolaamphiphile
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(nickel (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- IT 7440-66-6D, Zinc, complex with dicarboxylic valylvaline bolaamphiphile
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(zinc (II) ion; formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
- RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
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 IT 214075-06-6D, complex with metal ion
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
 (formation of metal-complexed nanofiber of dicarboxylic valylvaline bolaamphiphile and its morphol.)
 RN 214075-06-6 HCAPLUS
 CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis(L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:758431 HCAPLUS
 DN 140:9130
 ED Entered STN: 28 Sep 2003
 TI Hydrophilic interface-directed self-assembly of bola-form amide into hollow spheres
 AU Matsuzawa, Yoko; Kogiso, Masaki; Matsumoto, Mutsuyoshi; Shimizu, Toshimi; Shimada, Kayori; Itakura, Masanao; Kinugasa, Shinichi
 CS Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, 305-8565, Japan
 SO Advanced Materials (Weinheim, Germany) (2003), 15(17), 1417-1420
 CODEN: ADVMEW; ISSN: 0935-9648
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 CC 66-4 (Surface Chemistry and Colloids)
 AB A novel method was applied to produce spherical hollow particles composed of a bola-form amide [[bis(N- α -amido-L-valyl-L-valine)-1,10-decane]dicarboxylate, Val2C10] directed by interaction with hydrophilic substrates and using pH titration in aqueous solution. In the presence of hydrophilic substrates, rod-like micelles self-assembled to form spherical vesicles, which further gathered together to form spherical hollow particles. But the spherical vesicles assembled into fibers in the absence of these substrates. The obtained hollow particles can encapsulate materials that are also present in the solution during the self-assembling processes.
 ST bola form amide hollow sphere self assembly hydrophilic substrate
 IT Self-assembly
 (preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)
 IT Particles
 (spherical; preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)
 IT 6358-69-6, Pyranine
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(incorporation of dye mols. into hollow spheres of bola-form amide)

IT 214075-07-7

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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IT 214075-07-7

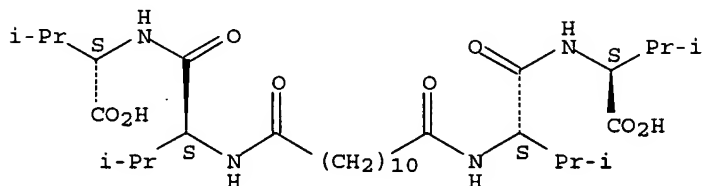
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of hollow spheres of bola-form amide by hydrophilic interface-directed self-assembly)

RN 214075-07-7 HCAPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:146503 HCAPLUS

DN 138:196946

ED Entered STN: 26 Feb 2003

TI Aggregate of metal nano-microparticles with linear arrangement, and its preparation method

IN Ogiso, Masaki; Shimizu, Toshimi

PA Japan Science and Technology Corporation, Japan;

National Institute of Advanced Industrial Science and Technology;

Japan Science and Technology Agency

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07K-0005/062

ICS B22F-0001/00; B22F-0009/24; C07K-0001/06

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 34

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP2003055397	A2	20030226	2001JP-0247557	20010817
	JP---3625436	B2	20050302		
PRAI	2001JP-0247557		20010817		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003055397	ICM	C07K-0005/062
	ICS	B22F-0001/00; B22F-0009/24; C07K-0001/06
	IPCI	C07K0005-062 [ICM,7]; B22F0001-00 [ICS,7]; B22F0009-24 [ICS,7]; C07K0001-06 [ICS,7]

OS MARPAT 138:196946

AB A metal nano-microparticle aggregate is provided, in which metal nano-microparticles are arranged in a linear fashion sep. from each other. The metal nano-microparticle aggregate is prepared by chemical reducing the hybrid nanofiber formed by adding metal ions (e.g., cupric ion) to a double-headed peptide lipid in water using a relatively weak reducing agent (e.g., hydrazine) of 2-5 equiv to the double-headed peptide lipid.

ST metal nano microparticle aggregate nanofiber peptide lipid

IT Lipopeptides
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (double-headed; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Microparticles
 (metal; nano-; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Molecular electronic devices
 (nanoelectronic; preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Aggregates
 Nanofibers
 Reducing agents
 (preparation method for metal nano-microparticle aggregate with linear arrangement)

IT Metals, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation method for metal nano-microparticle aggregate with linear arrangement)

IT 142-71-2, Cupric acetate 302-01-2, Hydrazine, reactions 7440-50-8, Copper, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation method for metal nano-microparticle aggregate with linear arrangement)

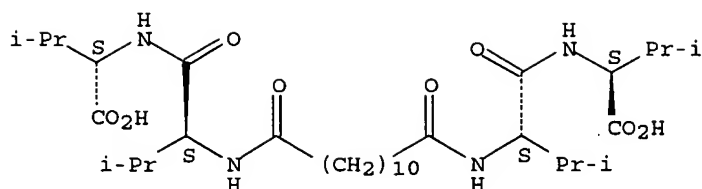
IT 214075-07-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation method for metal nano-microparticle aggregate with linear arrangement)

IT 214075-07-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation method for metal nano-microparticle aggregate with linear arrangement)

RN 214075-07-7 HCAPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:808639 HCAPLUS
 DN 138:45219
 ED Entered STN: 24 Oct 2002
 TI One-dimensional organization of copper nanoparticles by chemical reduction
 of lipid-copper hybrid nanofibers
 AU Kogiso, Masaki; Yoshida, Kaname; Yase, Kiyoshi; Shimizu,
 Toshimi
 CS Nanoarchitectonics Research Center (NARC), National Institute of
 Advanced Industrial Science and
 Technology (AIST), Tsukuba Central 5, 1-1-1 Higashi, Tsukuba,
 Ibaraki, 305-8565, Japan
 SO Chemical Communications (Cambridge, United Kingdom) (2002), (21),
 2492-2493
 CODEN: CHCOFS; ISSN: 1359-7345
 PB Royal Society of Chemistry
 DT Journal
 LA English
 CC 66-3 (Surface Chemistry and Colloids)
 AB One-dimensional organization of copper nanoparticles has been achieved by
 chemical reduction using lipid-copper hybrid nanofibers as a template; the reduction
 of copper ions and the resulting formation of copper clusters occurred at
 intervals of 2-5 nm along the nanofibers.
 ST copper nanoparticle lipid hybrid nanofiber redn
 IT Hybrid organic-inorganic materials
 Nanofibers
 Nanoparticles
 Nanostructures
 Order
 Reduction
 Surface structure
 (one-dimensional organization of copper nanoparticles by chemical reduction of
 lipid-copper hybrid nanofibers)
 IT Lipids, processes
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PROC (Process)
 (one-dimensional organization of copper nanoparticles by chemical reduction of
 lipid-copper hybrid nanofibers)
 IT 478921-81-2
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PROC (Process)
 (one-dimensional organization of copper nanoparticles by chemical reduction of
 lipid-copper hybrid nanofibers)
 IT 7440-50-8P, Copper, processes
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); PNU (Preparation, unclassified); PREP (Preparation); PROC
 (Process)
 (one-dimensional organization of copper nanoparticles by chemical reduction of
 lipid-copper hybrid nanofibers)
 IT 4180-12-5, Copper acetate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (one-dimensional organization of copper nanoparticles by chemical reduction of
 lipid-copper hybrid nanofibers)
 IT 302-01-2, Hydrazine, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)

(reduction agent; one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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IT 478921-81-2

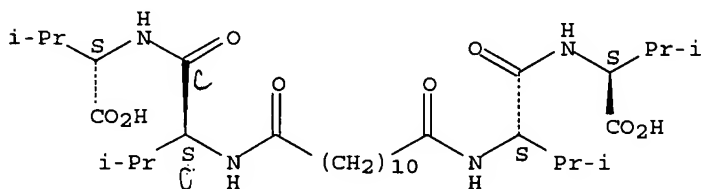
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(one-dimensional organization of copper nanoparticles by chemical reduction of lipid-copper hybrid nanofibers)

RN 478921-81-2 HCAPLUS

CN L-Valine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[L-valyl-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L38 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:507875 HCAPLUS

DN 134:102123

ED Entered STN: 27 Jul 2000

TI Organic supramolecular self-assembled materials stabilized by multiple hydrogen bonds

AU Shimizu, Toshimi

CS National Institute of Materials and Chemical Research, Ibaraki, 305-8565,

Japan
SO Transactions of the Materials Research Society of Japan (1999), 24(3),
431-436
CODEN: TMRJE3; ISSN: 1382-3469
PB Materials Research Society of Japan
DT Journal
LA English
CC 40-1 (Textiles and Fibers)
AB Self assembling properties and morphologies of synthetic bola-form
amphiphiles (bolaamphiphiles) are described in connection with the
formation of multiple hydrogen bonds. The D-glucose-, oligoglycine-, and
nucleobase-based bolaamphiphiles self assembled in aqueous media to form well
defined helical fibers, vesicle encapsulated microtubes, and double
helical ropes, resp. The formation strongly depends on the length and
even or odd carbon nos. of the spacer alkylene chains. Possible
self-assembling models for the mol. arrangements within the assemblies are
proposed on the basis of IR spectroscopy and X-ray structural analyses.
In addition, polymerization of bolaform butadiyne 1-glucosamide in self-assembled
nanoscale fiber morphol. is also discussed.
ST self assembly bolaform amphiphile sugar peptide nucleobase fiber
IT Amphiphiles
(bolaform; organic supramol. self-assembled materials stabilized by
multiple hydrogen bonds)
IT Hydrogen bond
Self-assembly
(organic supramol. self-assembled materials stabilized by multiple
hydrogen bonds)
IT Polyamides, processes
Polydiacetylenes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(organic supramol. self-assembled materials stabilized by multiple
hydrogen bonds)
IT Polymer chains
(orientation; organic supramol. self-assembled materials stabilized by
multiple hydrogen bonds)
IT Polymer chains
(packing; organic supramol. self-assembled materials stabilized by
multiple hydrogen bonds)
IT Synthetic polymeric fibers, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(self-assembled bolaform amphiphiles; organic supramol. self-assembled
materials stabilized by multiple hydrogen bonds)
IT Molecular structure-property relationship
(self-assembly; organic supramol. self-assembled materials stabilized by
multiple hydrogen bonds)
IT 178315-05-4 188481-30-3 188481-32-5 191734-06-2
216597-16-9 216597-19-2 219798-46-6
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(organic supramol. self-assembled materials stabilized by multiple
hydrogen bonds)
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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1994, V5
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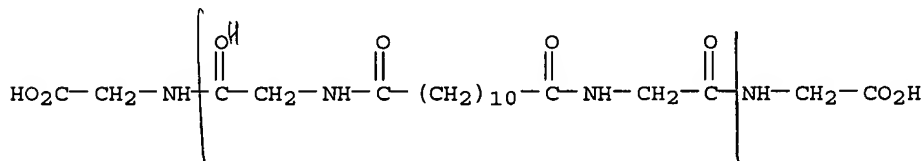
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IT 191734-06-2

RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (organic supramol. self-assembled materials stabilized by multiple
 hydrogen bonds)

RN 191734-06-2 HCAPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX
 NAME)



L38 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:507629 HCAPLUS

DN 133:282054

ED Entered STN: 27 Jul 2000

TI Self-assembled peptide fibers from valylvaline bola-amphiphiles by a
 parallel β -sheet network

AU Kogiso, M.; Okada, Y.; Hanada, T.; Yase, K.; Shimizu, T.

CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki,
 305-8565, Japan

SO Biochimica et Biophysica Acta, General Subjects (2000), 1475(3), 346-352

CODEN: BBGSB3; ISSN: 0304-4165

PB Elsevier B.V.

DT Journal

LA English

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 75

AB A series of dipeptide-based bola-amphiphiles, bis(N- α -amide-L-valyl-L-valine) 1,n-alkane dicarboxylate (n = 4-12), have been synthesized. The bola-amphiphiles with n = 4 and 6 self-assembled to form crystalline solids in water, whereas those with n = 7-12 produced peptide fibers. FT-IR spectroscopy and X-ray diffraction patterns revealed that the peptide fibers have parallel-type β -sheet networks between the valylvaline units. FT-IR deconvolution study of carboxyl regions indicated that these crystalline solids and peptide fibers are stabilized by interlayer bifurcated and intralayer lateral hydrogen-bond networks between the end carboxylic acid groups, resp.

ST valylvalyl alkanedioic bola amphiphile prepn fiber structure

IT Amphiphiles

(bolaform; self-assembled peptide fibers from valylvaline)

bola-amphiphiles by parallel β -sheet network)

IT Hydrogen bond
Molecular structure
Self-assembly
 β -Sheet
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel β -sheet network)

IT Peptides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel β -sheet network)

IT 214075-05-5P 214075-06-6P 214075-07-7P 300593-92-4P
300593-93-5P 300593-94-6P 300593-95-7P 300593-96-8P
300593-97-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel β -sheet network)

IT 111-16-0, 1,7-Heptanedioic acid 111-20-6, Decanedioic acid, reactions
123-99-9, 1,9-Nonanedioic acid, reactions 124-04-9, Hexanedioic acid,
reactions 505-48-6, 1,8-Octanedioic acid 505-52-2, 1,13-Tridecanedioic
acid 693-23-2, Dodecanedioic acid 821-38-5, Tetradecanedioic acid
1852-04-6, Undecanedioic acid 77935-37-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel β -sheet network)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

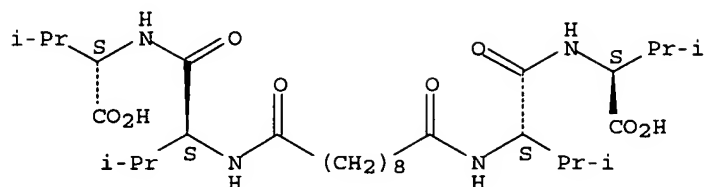
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IT 214075-06-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(self-assembled peptide fibers from valylvaline bola-amphiphiles by parallel β -sheet network)

RN 214075-06-6 HCAPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1999:748662 HCAPLUS
 DN 131:351679
 ED Entered STN: 25 Nov 1999
 TI Preparation of lipopeptide microfibrils
 IN Ogiso, Masaki; Shimizu, Toshimi
 PA Agency of Industrial Sciences and Technology, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07K-0005/062
 ICS C07C-0233/47; C07K-0001/14; C07K-0005/083; D01F-0004/00
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP--11322787	A2	19991124	1999JP-0066259	19990312
	JP---3012932	B2	20000228		
	US---6136956	A	20001024	1999US-0261156	19990303
PRAI	1998JP-0062548	A	19980313		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11322787	ICM	C07K-0005/062
	ICS	C07C-0233/47; C07K-0001/14; C07K-0005/083; D01F-0004/00
	IPCI	C07K0005-062 [ICM,6]; C07C0233-47 [ICS,6]; C07K0001-14 [ICS,6]; C07K0005-083 [ICS,6]; D01F0004-00 [ICS,6]
US---6136956	IPCI	C07K0016-00 [ICM,7]; A61K0038-00 [ICS,7]
	NCL	530/359.000; 530/331.000; 530/333.000; 530/343.000
	ECLA	A61K047/48W22; C07K005/06A1B2

OS MARPAT 131:351679

AB Title microfibrils, useful as supports, adsorbents, biocompatible materials, microelectronic materials, etc. (no data), are prepared by dissolving HO[COCH(CHMe₂)NH]mCO(CH₂)nCO[NHCH(CHMe₂)CO]mOH (m = 1-3; n = 6-18) into aqueous alkali metal hydroxide solns. and allowing to stand under saturated vapor pressure of 1-5 weight% aqueous acid solns. N,N'-bis(L-valyl-L-valyl)decane-1,10-dicarboxamide microfibrils were prepared in an aqueous NaOH solution under AcoH vapor.

ST lipopeptide microfibril prepn; valyldecanedicarboxamide microfibril prepn; decanedicarboxamide valylvalyl microfibril prepn

IT Fibril

(microfibril; preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

IT Acids, uses

Alkali metal hydroxides

RL: NUU (Other use, unclassified); USES (Uses)

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

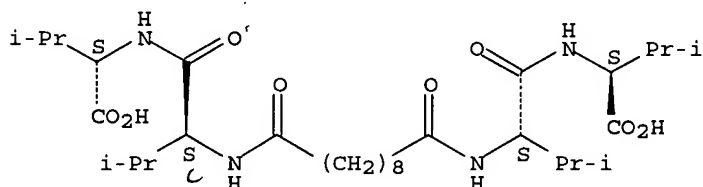
IT Lipopeptides

RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

- acid vapors)
- IT 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 79-43-6, Dichloroacetic acid, uses 124-38-9, Carbon dioxide, uses 1310-58-3, Potassium hydroxide, uses 1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, uses
- RL: NUU (Other use, unclassified); USES (Uses)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- IT 214075-05-5 214075-06-6 250266-83-2
250266-84-3 250266-85-4
- RL: PEP (Physical, engineering or chemical process); PROC (Process)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- IT 214075-07-7P
- RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- IT 111-20-6, Decanedioic acid, reactions 505-48-6, 1,6-Hexanedicarboxylic acid 693-23-2, 1,10-Decanedicarboxylic acid 2424-92-2, 1,18-Octadecanedicarboxylic acid 250266-86-5
- RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- IT 77935-37-6P 111072-21-0P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- IT 214075-06-6
- RL: PEP (Physical, engineering or chemical process); PROC (Process)
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)
- RN 214075-06-6 HCAPLUS
- CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L38 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 1999:559245 HCAPLUS
- DN 132:167596
- ED Entered STN: 02 Sep 1999
- TI Intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles
- AU Kogiso, Masaki; Hanada, Takeshi; Yase, Kiyoshi; Shimizu, Toshimi
- CS National Institute of Materials and Chemical Research, Ibaraki, 305-8565, Japan
- SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 1128-1129
- CODEN: ACPPAY; ISSN: 0032-3934
- PB American Chemical Society, Division of Polymer Chemistry
- DT Journal
- LA English
- CC 40-2 (Textiles and Fibers)

AB Dicarboxylic L-valyl-L-valine bolaamphiphiles with different lengths of alkylene spacers (n = 6, 7, 8, 9, and 10) were synthesized. Vapor diffusion of dilute AcOH into their aqueous solns. produced a hydrogel from n = 7-12, but crystalline solids from n = 6. Energy-filtering transmission electron microscopy revealed that a number of thin fibers with widths of 10-30 nm construct the hydrogel. These self-assemblies were formed at pH that corresponds to a fully protonated state. FT-IR spectra of the dried nano-fibers revealed that the peptide head groups form parallel beta-sheet structure. Curve-fitting results in the FT-IR COOH band region indicated that intralayer lateral interactions were dominant in the nano-fibers.

ST valylvaline bolaamphiphile intralayer hydrogen bond nanofiber self assembly

IT Amphiphiles
(bolaform; intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT Hydrogen bond
IR spectra
Self-assembly
(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT Synthetic polymeric fibers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

IT 258875-10-4 258875-11-5 258875-12-6 258875-13-7
258875-14-8
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

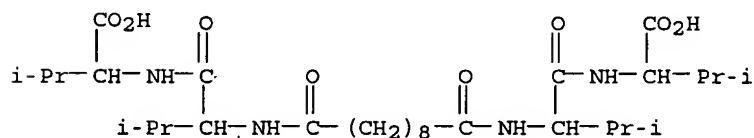
RE

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IT 258875-12-6
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(intralayer hydrogen-bond-directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles)

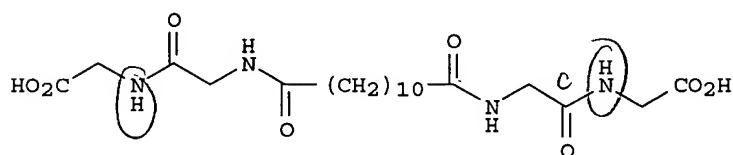
RN 258875-12-6 HCAPLUS

CN Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[valyl- (9CI) (CA INDEX NAME)



L38 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:44293 HCAPLUS
DN 130:168643

ED Entered STN: 22 Jan 1999
 TI Cross-section molecular imaging of supramolecular microtubes with contact atomic force microscopy
 AU Shimizu, Toshimi; Ohnishi, Satomi; Kogiso, Masaki
 CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305-8565, Japan
 SO Angewandte Chemie, International Edition (1998), 37(23), 3260-3262
 CODEN: ACIEF5; ISSN: 1433-7851
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 66
 GI

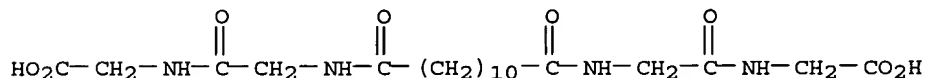


AB Vertical profiles along the mol. long axis within the microtube composed of glycyglycine bolaamphiphile I, examined by contact atomic force microscopy (AFM) in air, showed a molecularly resolved layered structure within the tube membranes.
 ST glycyglycine bolaamphiphile supramol microtube contact atomic force microscopy
 IT Atomic force microscopy
 (contact; cross-section mol. imaging of supramol. glycyglycine bolaamphiphile microtubes with contact atomic force microscopy)
 IT Supramolecular structure
 (microtube; cross-section mol. imaging of supramol. glycyglycine bolaamphiphile microtubes with contact atomic force microscopy)
 IT 191734-06-2
 RL: PRP (Properties)
 (cross-section mol. imaging of supramol. glycyglycine bolaamphiphile microtubes with contact atomic force microscopy)

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

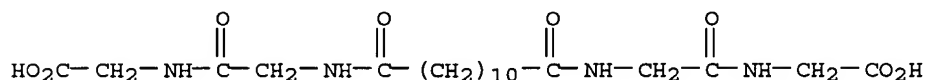
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- (17) Shimizu, T; J Am Chem Soc 1997, V119, P6209 HCAPLUS
- (18) Shimizu, T; Kobunshi Ronbunshu 1997, V54, P815 HCAPLUS
- (19) Shimizu, T; Nature 1996, V383, P487 HCAPLUS
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(21) Tuzov, I; Adv Mater 1995, V7, P656 HCAPLUS
 IT 191734-06-2
 RL: PRP (Properties)
 (cross-section mol. imaging of supramol. glycyglycine bolaamphiphile
 microtubes with contact atomic force microscopy)
 RN 191734-06-2 HCAPLUS
 CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX
 NAME)



L38 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1998:739530 HCAPLUS
 DN 130:38701
 ED Entered STN: 20 Nov 1998
 TI Supramolecular polyglycine II-type structure of glycyglycine
 bola-amphiphile
 AU Kogiso, Masaki; Masuda, Mitsutoshi; Shimizu, Toshimi
 CS Dep. Organic Materials, Natl. Inst. Materials Chem. Res., Tsukuba, 305,
 Japan
 SO Supramolecular Chemistry (1998), 9(3), 183-189
 CODEN: SCHEER; ISSN: 1061-0278
 PB Gordon & Breach Science Publishers
 DT Journal
 LA English
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 75
 AB A bola-amphiphile with a glycyglycine unit at each end,
 N,N'-bis[(carboxymethyl)carbamoylmethyl]dodecanediamide, was synthesized.
 The crystal structure was determined by single-crystal x-ray anal. [space group
 P21/a; a 8.678(3), b 4.873(4), c 27.161(3) Å, β 92.68(2)°,
 Z 2, Dc 1.33 g/cm³, R = 0.051 for 2095 data]. The 2 halves of the mol.
 are related by a center of symmetry and have a folded (CH₂)₂CO
 conformation (T.hivin.GS or TG.hivin.S). The mols. are arranged in a
 layered structure along the c-axis, forming a linear polymol. chain
 stabilized by acid-acid dimerization at each end. Each chain is arranged
 in a pseudo-hexagonal lattice stabilized by 3D H-bond networks between
 amide groups.
 ST glycyglycine bola amphiphile prepn structure; polyglycine II structure
 glycyglycine bola amphiphile; mol structure glycyglycine bola
 amphiphile; crystal structure glycyglycine bola amphiphile
 IT Amphiphiles
 (bolaform; preparation and structure of glycyglycine bola-amphiphile)
 IT Hydrogen bond
 (hydrogen bonding of glycyglycine bola-amphiphile)
 IT Crystal structure
 Molecular structure
 (of glycyglycine bola-amphiphile)
 IT Bond angle
 (torsional; in glycyglycine bola-amphiphile)
 IT 191734-06-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crystal structure, torsion angles, and hydrogen bonding)
 IT 693-23-2, Dodecanedioic acid 7797-34-4, Glycyglycine benzyl ester
 hydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and structure of glycyglycine bola-amphiphile)
 RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
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 (2) Biswas, A; Acta Crystallogr 1968, VB24, P40

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- IT 191734-06-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crystal structure, torsion angles, and hydrogen bonding)
- RN 191734-06-2 HCAPLUS
- CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



L38 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:544935 HCAPLUS

DN 129:276302

ED Entered STN: 27 Aug 1998

TI Intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles

AU Kogiso, Masaki; Hanada, Takeshi; Yase, Kiyoshi; Shimizu, Toshimi

CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305-8565, Japan

SO Chemical Communications (Cambridge) (1998), (17), 1791-1792

CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 75

AB Dicarboxylic L-valyl-L-valine bolaamphiphiles produced nanoscale fibers with widths of 10-30 nm, via proton-triggered self-assembly in water, which are dominated by both intralayer, lateral hydrogen-bond networks

between end carboxylic acid groups and parallel β -sheet networks
between amide groups.

ST valylvaline bolaamphiphile prepn fiber structure

IT Amphiphiles
Hydrogen bond
Molecular structure
Self-assembly
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT Peptides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT 214075-05-5P 214075-06-6P 214075-07-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

IT 111-20-6, Decanedioic acid, reactions 505-48-6, Octanedioic acid
693-23-2, Dodecanedioic acid 101222-19-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

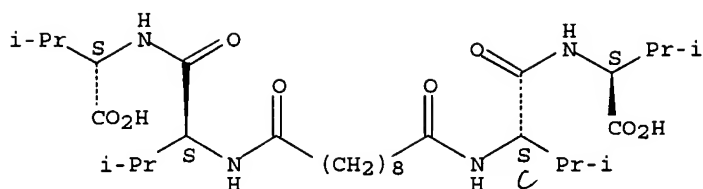
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- (24) Vand, V; Acta Crystallogr 1951, V4, P104 HCAPLUS

IT 214075-06-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(intralayer hydrogen-bond-directed self-assembly of nano-fibers from dicarboxylic valylvaline bolaamphiphiles)

RN 214075-06-6 HCAPLUS

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



6

L38 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1998:485933 HCAPLUS
 DN 129:245450
 ED Entered STN: 05 Aug 1998
 TI Dicarboxylic Oligopeptide Bolaamphiphiles: Proton-Triggered Self-Assembly of Microtubes with Loose Solid Surfaces
 AU Kogiso, Masaki; Ohnishi, Satomi; Yase, Kiyoshi; Masuda, Mitsutoshi; Shimizu, Toshimi
 CS National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, 305, Japan
 SO Langmuir (1998), 14(18), 4978-4986
 CODEN: LANGD5; ISSN: 0743-7463
 PB American Chemical Society
 DT Journal
 LA English
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 75
 AB A new family of oligopeptide-based bolaamphiphiles, glycyglycine-, glycyglycyglycine-, sarcosylsarcosine-, L-prolyl-L-proline-, glycylsarcosylsarcosine-, and glycy-L-prolyl-L-proline-based bolaamphiphiles with a dicarboxylic headgroup at each end, has been synthesized. The oligopeptide fragments were linked via an amide bond to a long-chain α,ω -dicarboxylic acid as a hydrocarbon spacer. Self-assembling properties of these bolaamphiphiles in water have been studied by light and cryogenic temperature transmission electron microscopy, IR spectroscopy, and pH titration. Only sodium or potassium salts (acid soap) of the bolaamphiphiles $(\text{CH}_2)_n(\text{CO}_2)[\text{Gly-Gly-OH}]_2$ [$n = 6, 8, 10$ (1e)] and $(\text{CH}_2)_n(\text{CO}_2)_2[\text{Gly-Gly-Gly-OH}]_2$ ($n = 6, 10$) produced well-defined microtubes of 1-3- μm diameter with closed ends. All the tubes encapsulated a number of vesicular assemblies inside the aqueous compartment. The tube formation strongly depends on the connecting alkylene chain length, the alkylene even-odd carbon nos., and constituent amino acid residues. Vectorial formation of acid-anion dimers and loose interpeptide hydrogen-bond networks are responsible for the microtube self-assembly. The atomic force microscopic observation of the microtube made of 1e revealed a distorted hexagonal arrangement of the headgroups on the surface. A self-assembling model and the tube formation mechanism are also discussed from the viewpoint of proton-triggered self-assembly.
 ST dicarboxylic peptide bolaamphiphile prepn selfassembly
 IT Amphiphiles
 Molecular structure
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)
 IT Peptides, preparation
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)
 IT 143673-93-2P 191734-06-2P 197315-14-3P 197315-15-4P
 197315-16-5P 197315-17-6P 197315-18-7P 200282-87-7P
 213327-83-4P 213327-84-5P 213327-85-6P
 213327-86-7P 213327-87-8P 213327-88-9P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of dicarboxylic oligopeptide bolaamphiphiles and their proton-triggered self-assembly properties)
 IT 693-23-2, Dodecanedioic acid 17293-96-8

6

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of dicarboxylic oligopeptide bolaamphiphiles and their
proton-triggered self-assembly properties)

IT 197315-22-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of dicarboxylic oligopeptide bolaamphiphiles and their
proton-triggered self-assembly properties)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

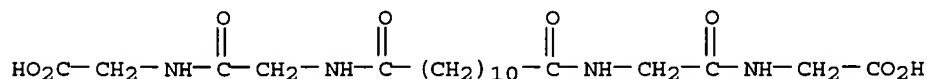
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IT 191734-06-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of dicarboxylic oligopeptide bolaamphiphiles and their
proton-triggered self-assembly properties)

RN 191734-06-2 HCAPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX
NAME)



L38 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:176160 HCAPLUS

DN 128:217643
 ED Entered STN: 25 Mar 1998
 TI Preparation of fibrous microtubes from oligoglycine compounds
 IN Shimizu, Toshimi; Kogiso, Masaki; Masuda, Mitsutoshi
 PA Director General Agency of Industrial Science and Technology, Japan
 SO Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07C-0235/74
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE--19737245	A1	19980305	1997DE-1037245	19970827
	DE--19737245	B4	20040805		
	JP--10072721	A2	19980317	1996JP-0227974	19960829
	JP---2796613	B2	19980910		
	US---5876748	A	19990302	1997US-0916375	19970822
	US---5910565	A	19990608	1998US-0184632	19981103
	US---6030640	A	20000229	1998US-0184631	19981103
PRAI	1996JP-0227974	A	19960829		
	1997US-0916375	A3	19970822		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19737245	ICM	C07C-0235/74
	IPCI	C07C0235-74 [ICM,6]
	ECLA	C07C235/74
JP--10072721	IPCI	D01F0004-00 [ICM,6]; D01F0006-00 [ICS,6]; D06M0023-12 [ICS,6]; A61L0027-00 [ICS,6]; C07C0233-47 [ICS,6]; C07K0005-00 [ICS,6]; C07K0007-00 [ICS,6]
US---5876748	IPCI	C07C0233-04 [ICM,6]
	NCL	424/450.000; 424/460.000; 424/477.000; 424/499.000; 436/071.000; 514/017.000; 514/018.000; 514/019.000
	ECLA	C07C235/74
US---5910565	IPCI	C08G0069-10 [ICM,6]; C08G0069-26 [ICS,6]
	NCL	528/328.000; 424/450.000; 528/332.000
	ECLA	C07C235/74
US---6030640	IPCI	C07C0233-04 [ICM,7]; C08G0069-10 [ICS,7]; C08G0069-26 [ICS,7]
	NCL	424/450.000; 424/460.000; 424/477.000; 424/499.000; 436/071.000; 514/017.000; 514/018.000; 514/019.000
	ECLA	C08G069/10

OS MARPAT 128:217643

AB Lipids MO(COCH₂NH)pCO(CH₂)nCO(NHCH₂CO)qOM (M = H, alkali metal; n = 6-18; p, q ≥ 1 with p + q ≤ 6) were prepared and converted into fibrous microtubes. Thus, glycyglycine benzyl ester hydrochloride was prepared and reacted with 1,10-decanedioic acid to afford N,N'-bis(glycyglycine)decane-1,10-dioic acid. The product was kept in NaOH-containing distilled water under air for two weeks to form fibrous microtubes of diameter 1-3 μm.

ST oligoglycine alkanedioic acid fibrous microtube prepn

IT Crystal morphology

(preparation of oligoglycine fibrous microtubes)

IT Peptides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of oligoglycine fibrous microtubes)

IT 197315-17-6P 200282-87-7P 200282-88-8P 204259-41-6P
 204259-42-7P

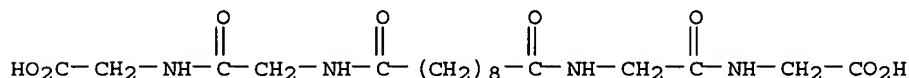
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of oligoglycine fibrous microtubes)

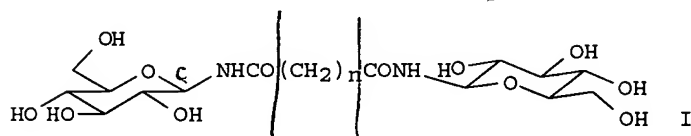
IT 111-20-6, Decanedioic acid, reactions 124-04-9, Hexanedioic acid, reactions 505-48-6, Octanedioic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of oligoglycine fibrous microtubes)
 IT 7797-34-4P 17293-96-8P 31972-51-7P 67585-90-4P 204259-43-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of oligoglycine fibrous microtubes)
 IT 200282-87-7P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of oligoglycine fibrous microtubes)
 RN 200282-87-7 HCAPLUS
 CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX
 NAME)



L38 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1998:19200 HCAPLUS
 DN 128:167677
 ED Entered STN: 15 Jan 1998
 TI Noncovalent synthesis of supramolecular polymer architectures from sugar-
 and peptide-based bolaamphiphiles
 AU Shimizu, Toshimi; Masuda, Mitsutoshi; Kogiso, Masaki;
 Asakawa, Masumi
 CS Dep. of Organic Materials, National Institute of Materials and Chemical
 Research, Tsukuba, 305, Japan
 SO Kobunshi Ronbunshu (1997), 54(12), 815-828
 CODEN: KBRBA3; ISSN: 0386-2186
 PB Kobunshi Gakkai
 DT Journal
 LA Japanese
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 GI



AB Construction of fibrous polymer architectures by self-assembling of
 1-glucosamide, 1-galactosamide, and oligoglycine bolaamphiphiles has been
 described. The 1-glucosamide bolaamphiphiles having a D-glucose residue
 at each end, Glc-n-Glc (I; n = 6, 9, 10, 11, 12, 13, and 14), have been
 synthesized by the condensation of 1-glucosylamine with a long chain
 α,ω -dicarboxylic acid. Similarly, the 1-galactosamide
 bolaamphiphiles having a D-galactose residue at each end, Gal-n-Gal (n =
 10, 11, 12), have been synthesized. Self-assembled supramol. structures
 in water strongly depend on whether n is even or odd, which resp. give
 rise to fibrous assemblies or planar platelets as well as amorphous
 solids. This finding provides the first example of a stereochem. effect
 due to even-odd connecting links on the assemblies. Mol. arrangements and
 hydrogen-bonded networks of the 1-glucosamide and 1-galactosamide
 assemblies were investigated using FT-IR spectroscopy, X-ray diffraction,
 and crystal analyses. Some oligoglycine-based bolaamphiphiles
 $\text{HO}(\text{COCH}_2\text{NH})_m\text{CO}(\text{CH}_2)_n\text{CO}(\text{NHCH}_2\text{CO})_m\text{OH}$ (n = 6, 8, 10; m = 2, 3) having an
 oligoglycine residue at each end have been synthesized. Sodium salts of
 the bolaamphiphiles also formed fibrous assemblies in water. Light
 microscopy for the assemblies clearly showed that closed-end tubular

structures encapsulate a large number of vesicular assemblies inside them. This is the first example of vesicle-enclosed microtubes. We also investigated the mol. arrangements and hydrogen-bonded networks within the tubes as a result of FT-IR and X-ray crystal analyses. One possible mechanism of the tube formation has been discussed.

ST self assembled supramol polymer architecture prepn; sugar bolaamphiphile prepn; peptide bolaamphiphile prepn; glucosamide bolaamphiphile prepn; galactosamide bolaamphiphile prepn; oligoglycine bolaamphiphile prepn; vesicle enclosed microtube; closed end tubular structure encapsulate; vesicular assembly

IT IR spectroscopy
(Fourier-transform; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT Amphiphiles
(bolaform; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT Liposomes
Self-assembly
Supramolecular structure
X-ray diffraction
X-ray spectroscopy
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT Peptides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(oligoglycines; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT Hydrogen bond
(three-dimensional; noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT 143673-93-2P 178315-05-4P 188481-28-9P 188481-29-0P 188481-30-3P
188481-32-5P 188481-33-6P 188481-34-7P 188947-72-0P
191734-06-2P 197315-17-6P 200282-87-7P
200282-88-8P 200282-89-9P 200282-91-3P 200282-92-4P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

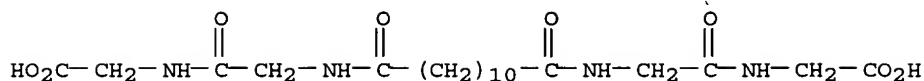
IT 572-09-8, 2,3,4,6-Tetra-O-acetyl- α -D-glucopyranosyl bromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT 13992-25-1P, 2,3,4,6-Tetra-O-acetyl- β -D-glucopyranosyl azide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

IT 191734-06-2P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(noncovalent synthesis of supramol. polymer architectures (e.g., vesicle-enclosed microtubes) from sugar- and peptide-based bolaamphiphiles)

RN 191734-06-2 HCAPLUS

CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis(glycyl- (9CI) (CA INDEX NAME)



L38 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:617454 HCAPLUS
 DN 127:307678
 ED Entered STN: 27 Sep 1997
 TI Preparation of double-headed lipids which has the C terminus of a
 oligopeptide chain on the both ends
 IN Shimizu, Toshimi; Ogiso, Maki; Masuda, Mitsutoshi
 PA Agency of Industrial Sciences and Technology, Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07K-0005/062
 ICS C07K-0001/02; C07K-0001/06; C07K-0005/078; C07K-0005/083;
 C11C-0003/00; C11B-0011/00
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 75

FAN.CNT 1

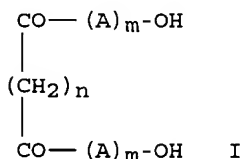
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP--09241298	A2	19970916	1996JP-0050082	19960307
	JP---2967184	B2	19991025		
	JP--11343296	A2	19991214	1999JP-0057140	19990304
	JP---3096735	B2	20001010		
PRAI	1996JP-0050082	A3	19960307		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09241298	ICM	C07K-0005/062
	ICS	C07K-0001/02; C07K-0001/06; C07K-0005/078; C07K-0005/083; C11C-0003/00; C11B-0011/00
	IPCI	C07K0005-062 [ICM,6]; C07K0001-02 [ICS,6]; C07K0001-06 [ICS,6]; C07K0005-078 [ICS,6]; C07K0005-083 [ICS,6]; C11C0003-00 [ICS,6]; C11B0011-00 [ICS,6]
JP--11343296	IPCI	C07K0005-062 [ICM,6]; C07K0001-02 [ICS,6]; C07K0001-06 [ICS,6]; C07K0005-078 [ICS,6]; C07K0005-083 [ICS,6]

OS MARPAT 127:307678

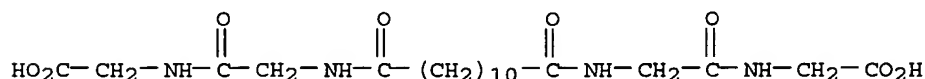
GI



AB The title compds. represented by formula (I; A = Gly, Pro, sarcosine; m ≥ 2; n = 6-18) are prepared by condensation of H-A1-Am-OR.HCl (A, m = same as above; OR = C terminus-protecting group of an amino acid) with HO₂C(CH₂)_nCO₂H (n = same as above) followed by deprotection of the C terminus protecting group. They can form stable aggregates due to their high self-assembling property, e.g. organic super-thin films and closed chain vesicles when dispersed in water, thermotropic liquid crystals in the bulk state, and lyotropic liquid crystals when mixed with an appropriate solvent, and are useful as functional materials in the fields of drugs, cosmetics, electronics, information, food processing industry, agricultural and forestry industry, and textile industry (no data). Thus, a solution of

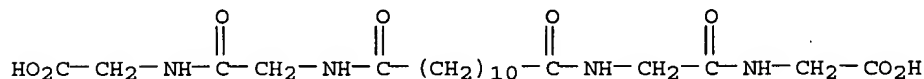
1,10-decanedicarboxylic acid and HOBt in DMF was stirred with 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride at -5° for 1 h, followed by adding H-Gly-Gly-Gly-OCH₂Ph.HCl (preparation given) and Et₃N in MeOH, and the resultant mixture was stirred overnight to give 94% N,N'-(glycylglycylglycine benzyl ester) decane-1,10-dicarboxamide. This was saponified with a mixture of 0.1 N aqueous NaOH and DMF at 80° for 2 h and acidified with 1 N aqueous HCl to give 92% N,N'-(glycylglycylglycine) decane-1,10-dicarboxamide.

- ST double headed lipid oligopeptide prepn; self assembling lipid oligopeptide; org superthin film; closed chain vesicle; thermotropic lyotropic liq crystal
- IT Liposomes
(closed chain; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Peptides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(oligopeptides; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Lipids, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Films
(superthin films; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT Liquid crystals
(thermotropic or lyotropic; preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 107-97-1, Sarcosine 147-85-3, L-Proline, reactions 505-48-6, Octanedioic acid 693-23-2, 1,10-Decanedicarboxylic acid 1738-76-7, Benzyl glycinate p-toluenesulfonate 2424-92-2, 1,18-Octadecanedicarboxylic acid 13742-92-2, N-tert-Butoxycarbonylglycine dicyclohexylamine salt
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 7797-34-4P 17293-96-8P 31972-51-7P 51211-55-3P 67585-90-4P 103126-97-2P 131056-57-0P 197315-20-1P 197315-21-2P 197315-22-3P 197315-23-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 143673-93-2P 191734-06-2P 197315-13-2P 197315-14-3P 197315-15-4P 197315-16-5P 197315-17-6P 197315-18-7P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- IT 191734-06-2P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of double-headed lipids containing oligopeptide chains as functional materials)
- RN 191734-06-2 HCAPLUS
- CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



L38 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:433628 HCAPLUS
 DN 127:81776
 ED Entered STN: 12 Jul 1997
 TI Noncovalent Formation of Polyglycine II-Type Structure by Hexagonal
 Self-Assembly of Linear Polymolecular Chains
 AU Shimizu, Toshimi; Kogiso, Masaki; Masuda, Mitsutoshi
 CS Department of Organic Materials, National Institute of Materials and
 Chemical Research, Tsukuba, 305, Japan
 SO Journal of the American Chemical Society (1997), 119(26), 6209-6210
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 22, 75
 AB Bolaamphiphile with a glycyglycine-head group at each end,
 N,N'-bis(carboxymethylcarbonylmethyl)decane-1,10-dicarboxamide, has been
 synthesized and its crystal structure was characterized by X-ray anal. In
 the crystal lattice, the mols. form a linear polymol. chain stabilized by
 one-dimensional hydrogen bonds between the two terminal carboxylic acids.
 Each chain forms a pseudo-hexagonal lattice and is intermolecularly linked
 to its six closest neighbors. A network of the amide hydrogen bonds are
 oriented in three directions at 120°.
 ST decanedicarbonylbisglycyglycine prepn crystal structure; glycyglycine
 decanedicarbonylbis prepn crystal structure; polyglycine II structure
 decanedicarbonylbisglycyglycine
 IT Crystal structure
 Molecular structure
 (preparation and crystal structure of decanedicarbonylbis(glycyglycine))
 IT 191734-06-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and crystal structure of decanedicarbonylbis(glycyglycine))
 IT 556-50-3, Glycyglycine 693-23-2, 1,10-Decanedicarboxylic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and crystal structure of decanedicarbonylbis(glycyglycine))
 RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Bella, J; Polymer 1994, V35, P1291 HCAPLUS
 (2) Chang, Y; J Am Chem Soc 1993, V115, P5991 HCAPLUS
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 (22) Masuda, M; Chem Commun 1996, P1057 HCAPLUS
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 (29) Wyler, R; Angew Chem, Int Ed Engl 1993, V32, P1699
 (30) Zhao, X; J Am Chem Soc 1990, V112, P6627 HCAPLUS
 (31) Zimmerman, S; Science 1996, V271, P1095 HCAPLUS
 IT 191734-06-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and crystal structure of decanededicarbonylbis(glycylglycine))
 RN 191734-06-2 HCAPLUS
 CN Glycine, 1,1'-(1,12-dioxo-1,12-dodecanediyl)bis[glycyl- (9CI) (CA INDEX
 NAME)



=> d all hitstr 136 tot

L36 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:717415 HCAPLUS
 DN 141:366778
 ED Entered STN: 02 Sep 2004
 TI Synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide
 AU Zhang, Zhi-Qin; Su, Xin-Mei; He, Han-Ping; Qu, Fan-Qi
 CS Department of Chemistry, Wuhan University, Wuhan, 430072, Peop. Rep. China
 SO Journal of Polymer Science, Part A: Polymer Chemistry (2004), 42(17),
 4311-4317
 CODEN: JPACEC; ISSN: 0887-624X
 PB John Wiley & Sons, Inc.
 DT Journal
 LA English
 CC 37-3 (Plastics Manufacture and Processing)
 AB In attempt to improve the properties of polyanhydrides based on aliphatic
 anhydrides, we synthesized novel polyanhydrides containing amide groups in the
 main chains. In this work, N,N'-bis(L-alanine)-sebacoylamide (BSAM) was
 prepared from natural amino acid and sebacic acid (SA) and characterized by
 IR and 1H NMR. In addition, polymers of PBSAM, P[1,6-bis(P-carboxyphenoxy)
 hexane (CPH)-BSAM], and P(CPH-SA), blends of P(CPH-SA)/polylactide (PLA),
 P(CPH-BSAM)/PLA were also prepared and characterized by IR, gel permeation
 chromatog., and differential scanning calorimetry. The hydrolytic degradation
 of polyanhydrides and their blends with PLA (number-average mol. weight = 2.90
 + 105) was evaluated in 0.1 M phosphate buffer pH 7.4 at 37
 °C. The results indicate that the existence of amide, aromatic, and
 ester bonds in the main chain of polymers slows down the degradation rate, and
 the tendency becomes clearer with the increasing amount of them, and the
 copolymers and their blends with PLA possess excellent phys. and mech.
 properties. These can make them more widely used in drug delivery and
 nerve regeneration.
 ST polyanhydride polyamide polyether blend polylactide biodegradable
 IT Polyethers, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyamide-polyanhydride-; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)
 IT Polyanhydrides
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyamide-polyether-; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)
 IT Polyethers, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyanhydride-; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)

IT Polyamides, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyanhydride-polyether-; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)

IT Polyanhydrides
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyether-; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)

IT Biodegradable materials
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT Polymer blends
 RL: PRP (Properties)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT Polyanhydrides
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT 26776-29-4P, Sebacic acid homopolymer 26913-47-3P, Sebacic acid
 homopolymer, sru 106680-96-0P 121265-91-6P 778641-06-8P
 778641-08-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepolymers; synthesis, characterization, and degradation of
 poly(anhydride-co-amide)s and their blends with polylactide)

IT 74774-53-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6,
 Polylactic acid
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT 56-41-7, L-Alanine, reactions 99-96-7, p-Hydroxybenzoic acid, reactions
 111-19-3, Sebacoyl chloride 629-03-8, 1,6-Dibromohexane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT 778641-05-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

IT 778641-07-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis, characterization, and degradation of poly(anhydride-co-amide)s
 and their blends with polylactide)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (7) Fu, J; J Funct Polym 1998, V11, P301
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- (10) Uhrich, K; Macromolecules 1995, V28, P2184 HCAPLUS
- (11) Ukirich, K; Macromolecules 1995, V28(7), P2184
- (12) Wu, M; J Biomed Mater Res 1994, V28, P387 HCAPLUS

IT 778641-06-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(prepolymers; synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-06-8 HCAPLUS

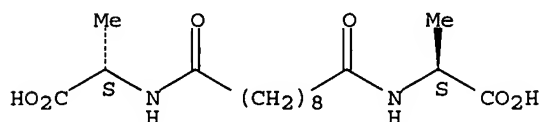
CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 778641-05-7

CMF C16 H28 N2 O6

Absolute stereochemistry.



IT 778641-05-7P

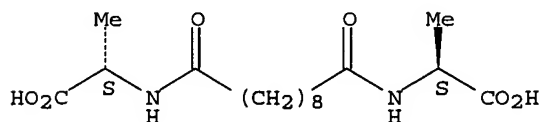
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-05-7 HCAPLUS

CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 778641-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis, characterization, and degradation of poly(anhydride-co-amide)s and their blends with polylactide)

RN 778641-07-9 HCAPLUS

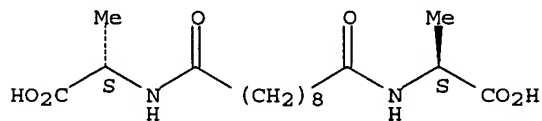
CN L-Alanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, polymer with 4,4'-[1,6-hexanediylbis(oxy)]bis[benzoic acid] (9CI) (CA INDEX NAME)

CM 1

CRN 778641-05-7

CMF C16 H28 N2 O6

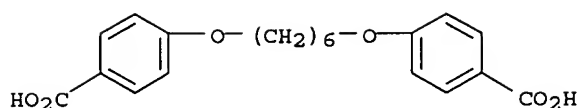
Absolute stereochemistry.



CM 2

CRN 74774-53-1

CMF C20 H22 O6



L36 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:368857 HCAPLUS

DN 140:386000

ED Entered STN: 06 May 2004

TI Compounds, compositions and methods for modulating fat metabolism for treatment of metabolic disorders

IN Gaudriault, Georges; Kilinc, Ahmet; Bousquet, Olivier; Goupil-Lamy, Anne; Harosh, Itzik

PA Obetherapy Biotechnology, Fr.

SO PCT Int. Appl., 461 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 1-3 (Pharmacology)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2004037159	A2	20040506	2003WO-IL00860	20031023
	WO2004037159	A3	20040715		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	2002US-420316P	P	20021023		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004037159	ICM	A61K
	IPCI	A61K [ICM,7]
	ECLA	A61K031/00

OS MARPAT 140:386000

AB Methods and compns. of identifying candidate compds., for modulating fat metabolism and/or inhibiting Apobec-1 activity are provided. The invention relates to compds. and pharmaceutical compns. which are useful for regulating fat metabolism and can be used for treatment of diseases and disorders selected from the group consisting of overweight, obesity, atherosclerosis, hypertension, non-insulin dependent diabetes mellitus, pancreatitis, hypercholesteremia, hypertriglyceridemia, hyperlipidemia.

ST fat metab apolipoprotein Apobec1 inhibitor antiobesity hypolipemic obesity

IT Apolipoproteins
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (1 (Apobec-1), B mRNA editing enzyme isoform; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Apolipoproteins
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (B-48; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Protein sequences
 (alignment; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Antiarteriosclerotics
(antiatherosclerotics; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Anti-inflammatory agents
Anticholesteremic agents
Antidiabetic agents
Antihypertensives
Antiobesity agents
Atherosclerosis
Drug screening
Human
Hypercholesterolemia
Hypertension
Hypertriglyceridemia
Hypolipemic agents
Obesity
Pharmacophores
Protein sequences
Structure-activity relationship
(compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Chemistry
(computational; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Information systems
(data; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Lipids, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hyperlipidemia; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Adipose tissue
(metabolism; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Diabetes mellitus
(non-insulin-dependent; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Inflammation
Pancreas, disease
(pancreatitis; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT Information systems
(storage; compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

IT 51-59-2 52-66-4 54-42-2 59-14-3 65-46-3, Cytidine 84-52-6,
3'-Cytidylic acid 131-55-5 147-94-4, Arabinocytosine 149-87-1
149-95-1 320-67-2 342-69-8 362-75-4 462-88-4 466-18-2
488-31-3D, Pentaric acid, stereoisomers 562-73-2D, stereoisomers
686-43-1 686-50-0 692-04-6 769-03-9 770-74-1 869-19-2
1024-99-3 1068-90-2 1078-64-4 1188-37-0 1191-22-6D, stereoisomers
1504-41-2 1658-27-1, 1,5-Dioxaspiro[5.5]undecane-2,4-dione 1707-77-3
1818-71-9 1956-30-5 1999-33-3 1999-42-4 2139-60-8 2188-09-2
2189-27-7 2312-73-4 2510-38-5 2782-86-7D, Heptonic acid,
stereoisomers 2819-56-9 2875-26-5D, stereoisomers 3001-46-5
3054-58-8 3081-61-6 3131-60-0 3232-65-3 3250-02-0 3258-11-5
3303-41-1 3322-70-1 3346-70-1 3624-34-8 3624-37-1 3721-90-2
3736-77-4 3750-26-3D, stereoisomers 3768-18-1 3770-74-9 3786-46-7
3814-79-7 3918-94-3 4365-31-5 4417-88-3 4430-28-8D, stereoisomers
4744-47-2 4767-03-7 4836-13-9 4887-54-1 4902-38-9 4961-03-9
5183-02-8 5313-55-3 5382-77-4 5395-36-8 5416-55-7 5428-96-6
5440-35-7 5447-62-1 5460-66-2 5578-82-5, 1,4-Dioxacyclotetradecane-

5,14-dione 5746-27-0 5948-68-5 6161-23-5 6253-54-9D, stereoisomers
 6269-96-1 6275-97-4 6285-22-9 6318-57-6 6374-97-6 6419-70-1
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 Pentitol, stereoisomers 6940-61-0D, stereoisomers 6958-35-6D,
 stereoisomers 6965-31-7D, stereoisomers 6973-89-3 6976-37-0
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 stereoisomers 7586-36-9D, stereoisomers 7728-81-6 10082-57-2
 10212-20-1 10238-03-6D, stereoisomers 10486-63-2 13030-62-1
 13253-09-3 13389-15-6 13433-02-8 13588-94-8 14001-10-6
 14009-07-5D, stereoisomers 14276-10-9, 1,1,2,2-Cyclobutanetetramethanol
 14505-44-3D, stereoisomers 15537-71-0 15763-12-9 15888-38-7
 15891-49-3 15981-92-7 16424-76-3 16424-88-7 16424-88-7D,
 stereoisomers 16485-10-2D, stereoisomers 16710-12-6, 6-Methylcytidine
 16804-55-0 17050-70-3D, stereoisomers 17242-87-4 17902-23-7
 19234-66-3 19706-80-0 20187-46-6 20402-36-2 21017-04-9
 21438-60-8 21451-32-1 21559-72-8 21612-23-7 21798-35-6
 21832-28-0 22413-28-1 22522-21-0 23141-03-9 23147-59-3D,
 stereoisomers 23707-32-6 23707-33-7 24553-06-8
 24573-80-6 24573-81-7D, stereoisomers 25238-94-2D, stereoisomers
 26001-38-7 26596-15-6D, stereoisomers 28733-39-3 28817-54-1
 28817-55-2 28822-73-3 29171-87-7 29768-80-7D, stereoisomers
 29880-25-9 30635-52-0D, Heptitol, stereoisomers 30902-36-4
 31234-47-6 31281-86-4 31796-57-3 32595-59-8 32976-04-8
 33054-80-7 34340-37-9 35674-84-1D, Heptonamide, stereoisomers
 35824-20-5 36396-99-3 37487-95-9 38048-32-7 38062-70-3
 38313-48-3 40582-67-0 40615-39-2 40825-95-4D, Heptopyranose,
 stereoisomers 41552-86-7 41552-92-5 42752-07-8D, Hexopyranose,
 stereoisomers 43025-54-3 43179-48-2 45007-61-2D, Hexitol,
 stereoisomers 46795-89-5D, stereoisomers 50408-20-3 51424-07-8D,
 stereoisomers 51529-39-6 51926-51-3 52096-38-5D, stereoisomers
 52338-88-2 52393-78-9D, stereoisomers 52899-07-7 52899-09-9
 53106-52-8D, Pentose, stereoisomers 54982-83-1, 1,4-Dioxacyclohexadecane-
 5,16-dione 55478-49-4 57100-18-2, Pseudoisocytidine 57204-06-5
 57713-49-2 57840-71-8 58093-05-3, 6,10-Dioxaspiro[4.5]decane-7,9-dione
 61671-83-8 61858-03-5 62137-32-0D, stereoisomers 62885-64-7
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 69407-80-3 69779-92-6 69791-26-0 69984-73-2 70354-63-1
 71540-13-1 71698-68-5 71927-65-6D, Heptose, stereoisomers 73502-37-1
 73716-22-0 75145-86-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(compds., compns. and methods for modulating fat metabolism for treatment
 of metabolic disorders)

IT 76054-81-4 76512-82-8 77517-00-1 77642-81-0 79465-26-2D,
 2-Heptulose, stereoisomers 84211-42-7 84472-90-2 85227-98-1
 86625-99-2 87515-42-2 88156-01-8D, stereoisomers 88273-32-9
 89265-67-8 89814-70-0 89852-17-5 90191-92-7D, stereoisomers
 91086-48-5 91346-99-5 91400-85-0 91646-60-5D, stereoisomers
 92790-50-6 93032-76-9 93144-30-0 94536-61-5 94597-35-0
 96647-89-1D, stereoisomers 96699-64-8 97466-79-0D, stereoisomers
 98056-52-1 98278-24-1 98951-66-7 99032-16-3 100496-09-1
 100506-87-4 101007-51-6 102219-53-4 103067-82-9 103206-56-0
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309923-62-4	312609-13-5	312699-16-4	312699-17-5	313067-44-6
313378-67-5	314034-42-9	314767-53-8	316148-78-4	316381-87-0
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334506-75-1	334668-81-4	337533-57-0D, stereoisomers	337533-58-1D, stereoisomers	
338987-56-7	341006-63-1	343820-65-5	347347-33-5	
349401-56-5	351336-05-5	351344-20-2	351344-34-8	351438-11-4
352226-25-6	352429-36-8D, stereoisomers	352548-32-4	352553-74-3	
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393822-71-4	393822-74-7	393823-03-5	400879-41-6	411237-23-5
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439142-15-1	442555-00-2	448189-47-7	452921-91-4	473267-50-4
487022-71-9	488087-82-7	488109-76-8	488132-66-7	489442-93-5
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RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(compds., compns. and methods for modulating fat metabolism for treatment of metabolic disorders)

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	577764-88-6	578751-84-5	578756-37-3	587003-05-2	587850-18-8
	608492-44-0	618392-67-9	618412-53-6	676438-98-5	680218-16-0
	682333-64-8	686298-73-7D, stereoisomers	686298-74-8D, stereoisomers		
	686298-75-9D, Hexonamide, stereoisomers	686298-76-0	686298-77-1D, 2,5-Hexodiulose, stereoisomers	686298-78-2D, stereoisomers	
	686298-79-3D, stereoisomers	686298-80-6	686298-82-8D, stereoisomers		
	686298-83-9D, stereoisomers	686298-90-8D, stereoisomers	686298-91-9D, stereoisomers	686298-92-0D, stereoisomers	686298-93-1D, stereoisomers
	686298-94-2D, stereoisomers	686298-95-3D, 2-Hexulopyranose, stereoisomers	686298-96-4D, stereoisomers	686298-97-5D, stereoisomers	686298-98-6D, stereoisomers
	686299-00-3D, stereoisomers	686299-01-4D, stereoisomers	686299-02-5D, stereoisomers	686299-03-6D, stereoisomers	686299-04-7D, stereoisomers
	686299-05-8D, stereoisomers	686299-06-9	686299-07-0D, stereoisomers	686299-08-1	686299-09-2D, stereoisomers
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 686301-11-1 686301-13-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(compds., compns. and methods for modulating fat metabolism for treatment
 of metabolic disorders)

IT 686301-14-4 686301-15-5 686301-16-6 686301-17-7 686301-18-8
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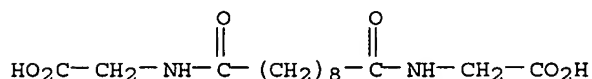
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (comps., compns. and methods for modulating fat metabolism for treatment
 of metabolic disorders)

IT 109477-56-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (comps., compns. and methods for modulating fat metabolism for treatment
 of metabolic disorders)

RN 109477-56-7 HCAPLUS

CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:382567 HCAPLUS

DN 133:267112

ED Entered STN: 09 Jun 2000

TI Odd-even effects in supramolecular assemblies of diamide bolaamphiphiles

AU Schneider, Johannes; Messerschmidt, Christian; Schulz, Andrea; Gnade,
 Michael; Schade, Boris; Luger, Peter; Bombicz, Petra; Hubert, Vera;
 Fuhrhop, Juergen-Hinrich

CS FB Biologie Chemie Pharmazie Institut fuer Chemie/Organische Chemie, Freie
 Universitaet Berlin, Berlin, D-14195, Germany

SO Langmuir (2000), 16(23), 8575-8584

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 22, 75

AB Bolaamphiphiles ("bolas"), containing two secondary amide groups at the ends
 of an oligomethylene chain and two amino acid type headgroups, were
 synthesized. The structures of crystals, of noncovalent fibers, and of
 surface monolayers on gold strongly depended on odd-even effects. In the
 crystal structures of alanine-alanine dipeptides with C11- and
 C12- α,ω -amino acid linkers, helical (even number of methylene
 groups in the chain) or sheetlike (odd) arrangements of the headgroups
 were found. Bolas containing two different amino acid end groups, namely, D-
 or L-alanine and L-lysine, connected by the same C11- and C12 linkers did
 not crystallize. Only the even-numbered bolas gave fibers. L- And
 D-configurations of alanine headgroups affected the curvature of the
 fibers. Diamido bolas with terminal SH-groups self-assembled on gold.
 Only those with even-numbered chains gave rigid monolayers. Simple
 stereochem. arguments concerning the fitting of amide hydrogen bond chains
 on both ends of the bolas are given to explain the observed differences in
 crystals, fibers, and monolayers.

ST bolaamphiphile diamide prepn crystal structure supramol assembly

IT Amphiphiles

(bolaform; odd-even effects in supramol. assemblies of synthetic
 diamide bolaamphiphiles containing alanines and/or lysines)

IT Molecular association

(fibers; odd-even effects in supramol. assemblies of synthetic diamide
 bolaamphiphiles containing alanines and/or lysines)

IT Crystal structure

Helix (conformation)

Self-assembly

(odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT Amino acids, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 253195-53-8P 289056-65-1P 289056-66-2P 289056-67-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles)

IT 289056-73-1 289056-74-2
 RL: PRP (Properties)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 289056-58-2P 289056-59-3P 289056-60-6P
 289056-61-7P 289056-62-8P 289056-63-9P 289056-64-0P
 289056-68-4P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 821-38-5, Tetradecanedioic acid 13288-57-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

IT 100286-82-6P 105579-84-8P 289056-69-5P 289056-70-8P 289056-71-9P
 289056-72-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

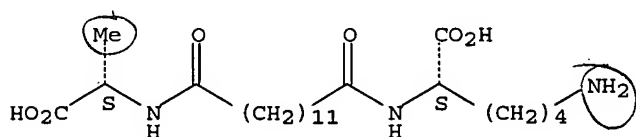
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- (2) Bain, C; J Am Chem Soc 1989, V111, P321 HCAPLUS
- (3) Boettcher, C; Ultramicroscopy 1996, V62, P133 HCAPLUS
- (4) Butt, H; Langmuir 1995, V11, P4735 HCAPLUS
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- (6) Clegg, R; Langmuir 1996, V12, P5239 HCAPLUS
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- (12) Poirier, G; Chem Rev 1997, V97, P1117 HCAPLUS
- (13) Porter, M; J Am Chem Soc 1987, V109, P3559 HCAPLUS
- (14) Tam-Chang, S; Langmuir 1995, V11, P4371 HCAPLUS
- (15) Tuzov, I; New J Chem 1996, V20, P23 HCAPLUS
- (16) Tuzov, I; New J Chem 1996, V20, P37 HCAPLUS

IT 289056-59-3P 289056-60-6P 289056-61-7P
 289056-62-8P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (odd-even effects in supramol. assemblies of synthetic diamide bolaamphiphiles containing alanines and/or lysines)

RN 289056-59-3 HCAPLUS

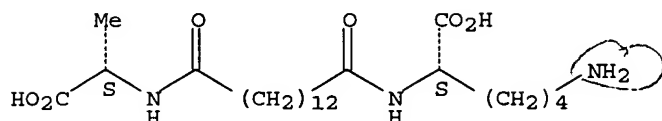
CN L-Lysine, N2-[13-[[[(1S)-1-carboxyethyl]amino]-1,13-dioxotridecyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



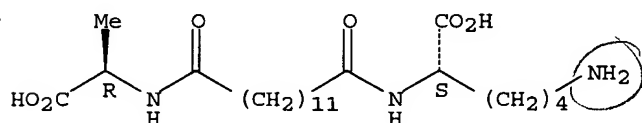
RN 289056-60-6 HCAPLUS
 CN L-Lysine, N2-[14-[[[(1S)-1-carboxyethyl]amino]-1,14-dioxotetradecyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



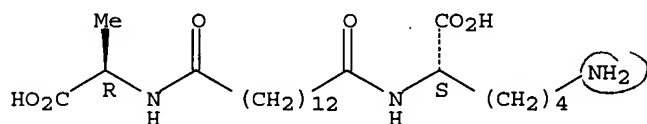
RN 289056-61-7 HCAPLUS
 CN L-Lysine, N2-[13-[[[(1R)-1-carboxyethyl]amino]-1,13-dioxotridecyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



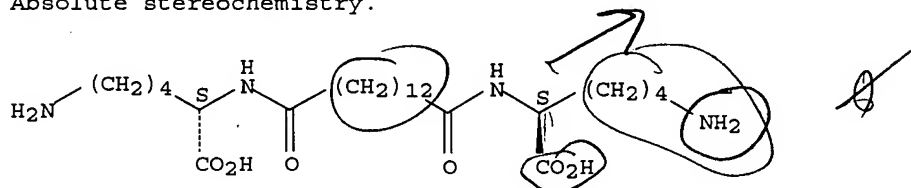
RN 289056-62-8 HCAPLUS
 CN L-Lysine, N2-[14-[[[(1R)-1-carboxyethyl]amino]-1,14-dioxotetradecyl]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



IT 289056-72-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (odd-even effects in supramol. assemblies of synthetic diamide
 bolaamphiphiles containing alanines and/or lysines)
 RN 289056-72-0 HCAPLUS
 CN L-Lysine, N2,N2'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



L36 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1999:370092 HCAPLUS
 DN 131:44587
 ED Entered STN: 15 Jun 1999
 TI Dicarboxylic acids for thermally reversible recording material
 IN Hotta, Yoshihiko; Morohoshi, Kunichika; Sugiyama, Katsuyuki; Kokubo,
 Katsuaki; Kawai, Koji; Hosoda, Kazuo; Moriya, Masafumi
 PA Ricoh Co., Ltd., Japan; Miyoshi Oil and Fat Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07C-0233/47
 ICS B41M-0005/36; C09K-0009/02
 CC 23-16 (Aliphatic Compounds)
 Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP-11152256	A2	19990608	1998JP-0259182	19980831
PRAI	1997JP-0254056	A	19970904		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11152256	ICM	C07C-0233/47
	ICS	B41M-0005/36; C09K-0009/02
	IPCI	C07C0233-47 [ICM,6]; B41M0005-36 [ICS,6]; C09K0009-02 [ICS,6]

AB Title dicarboxylic acids have general structure
 $\text{HO}_2\text{C}(\text{CH}_2)_n\text{NHCO}(\text{CH}_2)_m\text{CONH}(\text{CH}_2)_n\text{CO}_2\text{H}$ ($11 \geq n \geq 1$,
 $18 \geq m \geq 4$) and are synthesized for use in thermally reversible
 recording material.

ST dicarboxylic acid thermally reversible recording material

IT Carboxylic acids, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)

(dicarboxylic; preparation of dicarboxylic acids for thermally reversible
 recording material)

IT Recording materials

(preparation of dicarboxylic acids for thermally reversible recording
 material)

IT 25580-91-0P 25611-85-2P 102817-75-4P 125120-74-3P 219852-90-1P
 219852-91-2P 227204-04-8P 227204-05-9P 227204-06-0P
 227204-07-1P 227204-08-2P 227204-09-3P 227204-10-6P 227204-11-7P
 227204-12-8P 227204-13-9P 227204-14-0P 227204-15-1P 227204-16-2P
 227204-17-3P 227204-18-4P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)

(preparation of dicarboxylic acids for thermally reversible recording
 material)

IT 56-12-2, 4-Aminobutyric acid, reactions 56-40-6, Glycine, reactions
 60-32-2, 6-Aminocaproic acid 107-95-9, β -Alanine 110-60-1,
 1,4-Butanediamine 111-19-3, Sebacic acid dichloride 111-50-2, Adipic
 acid dichloride 124-09-4, 1,6-Hexanediamine, reactions 373-44-4,
 1,8-Diaminooctane 541-48-0, 3-Aminobutyric acid 543-20-4, Succinic
 acid dichloride 626-86-8, Adipic acid monoethyl ester 628-47-7,
 5-Aminocaproic acid 646-25-3, 1,10-Diaminodecane 693-57-2,
 12-Aminolauric acid 821-38-5, Tetradecanedioic acid 1070-34-4,
 Succinic acid monoethyl ester 1071-71-2 2104-19-0, Azelaic acid
 monomethyl ester 2783-17-7, 1,12-Diaminododecane 4082-57-9 4244-84-2
 4834-98-4, Dodecanedioic acid dichloride 6937-16-2 10027-07-3, Suberic
 acid dichloride 21646-49-1, Tetradecanedioyl dichloride 33018-91-6,
 Pimelic acid monoethyl ester 84636-23-7 101702-50-5,
 Eicosanedicarbonyl dichloride 102014-64-2 227204-03-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of dicarboxylic acids for thermally reversible recording
 material)

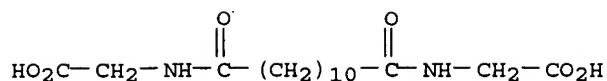
IT 227204-04-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
 (Preparation); USES (Uses)

(preparation of dicarboxylic acids for thermally reversible recording
 material)

RN 227204-04-8 HCAPLUS

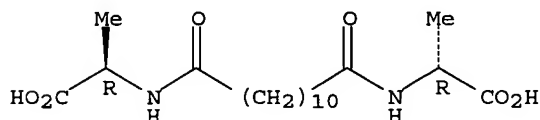
CN Glycine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1999:205018 HCAPLUS
 DN 131:75264
 ED Entered STN: 01 Apr 1999
 TI Synthesis and aggregation of two-headed surfactants bearing amino acid moieties
 AU Franceschi, Sophie; de Viguerie, Nancy; Riviere, Monique; Lattes, Armand
 CS Laboratoire des Interactions Moleculaires et Reactivite Chimique et Photochimique (IMRCP) (CNRS UMR 5623), Universite Paul Sabatier, Toulouse, Fr.
 SO New Journal of Chemistry (1999), 23(4), 447-452
 CODEN: NJCHE5; ISSN: 1144-0546
 PB Royal Society of Chemistry
 DT Journal
 LA English
 CC 46-3 (Surface Active Agents and Detergents)
 AB The synthesis of bolaamphiphiles with two amino acid heads having the general structure AA-X-AA, where AA denotes a N-terminal amino acid (D- or L-alanine or L-histidine) and X is OC(CH₂)₂CO (n = 10, 12, 20), is described. Micellization was observed for the bolaamphiphiles with n = 20. For compds. with shorter chain lengths, light scattering and electron microscopy suggest the formation of vesicles or fibrous aggregates. These bolaamphiphiles can also form gels at higher concns. in water or ethanol. Fibrous structures were observed in these gels by electron microscopy.
 ST amino acid diamide prepn surfactant
 IT Gels
 (from bis(amino acid) amide derivative surfactants)
 IT Micelles
 (in aggregation of bis(amino acid) amide derivative surfactants)
 IT Surfactants
 (nonionic; preparation and aggregation of bis(amino acid) amide derivative surfactants)
 IT Amino acids, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and aggregation of bis(amino acid) amide derivative surfactants)
 IT 228582-15-8P 228582-16-9P 228582-17-0P
 228582-18-1P 228582-19-2P 228582-20-5P
 228582-21-6P 228582-22-7P 228582-23-8P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation and aggregation of bis(amino acid) amide derivative surfactants)
 IT 505-56-6, Docosanedioic acid 693-23-2, 1,10-Decanedicarboxylic acid
 821-38-5, 1,12-Dodecanedicarboxylic acid 1499-46-3, L-Histidine methyl ester 4834-98-4, Dodecanedioyl dichloride 10065-72-2, L-Alanine methyl ester 16250-48-9, Docosanedioyl dichloride 21646-49-1, Tetradecanedioyl dichloride 21705-13-5, D-Alanine methyl ester
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; preparation and aggregation of bis(amino acid) amide derivative surfactants)
 RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
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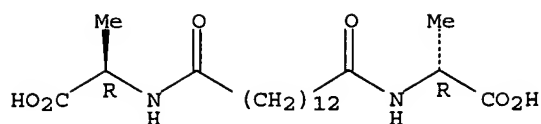
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 IT 228582-15-8P 228582-16-9P 228582-17-0P
 228582-18-1P 228582-19-2P 228582-20-5P
 228582-21-6P 228582-22-7P 228582-23-8P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (preparation and aggregation of bis(amino acid) amide derivative surfactants)
 RN 228582-15-8 HCAPLUS
 CN D-Alanine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 228582-16-9 HCAPLUS
 CN D-Alanine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX NAME)

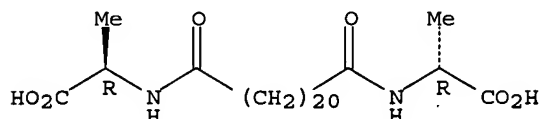
Absolute stereochemistry.



RN 228582-17-0 HCAPLUS

CN D-Alanine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX NAME)

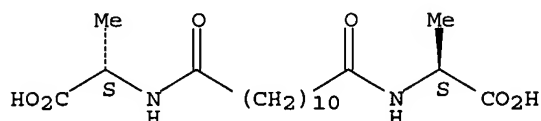
Absolute stereochemistry.



RN 228582-18-1 HCAPLUS

CN L-Alanine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

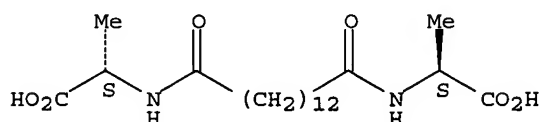
Absolute stereochemistry.



RN 228582-19-2 HCAPLUS

CN L-Alanine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX NAME)

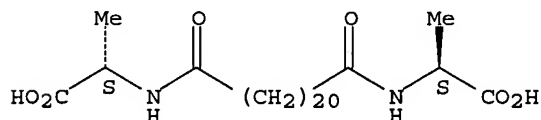
Absolute stereochemistry.



RN 228582-20-5 HCAPLUS

CN L-Alanine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX NAME)

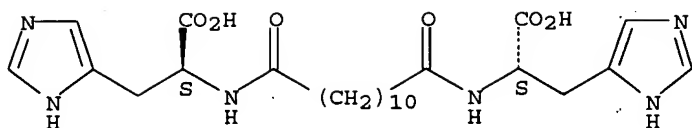
Absolute stereochemistry.



RN 228582-21-6 HCAPLUS

CN L-Histidine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)

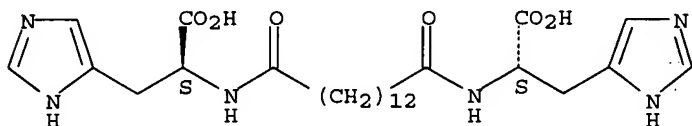
Absolute stereochemistry.



RN 228582-22-7 HCAPLUS

CN L-Histidine, N,N'-(1,14-dioxo-1,14-tetradecanediyl)bis- (9CI) (CA INDEX NAME)

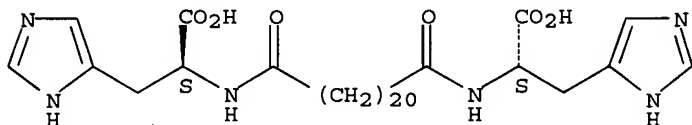
Absolute stereochemistry.



RN 228582-23-8 HCAPLUS

CN L-Histidine, N,N'-(1,22-dioxo-1,22-docosanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L36 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:922052 HCAPLUS

DN 123:319509

ED Entered STN: 16 Nov 1995

TI Compositions for corrosion prevention and anti-scaling for water-cooling system of internal combustion engines

IN Li Yuanlin; Qiu Kaiming

PA Yuhfu Sulfur-Iron Ore Enterprise Group Corp., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM C09K-0003/00

ICS C02F-0005/12

CC 55-6 (Ferrous Metals and Alloys)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1092795	A	19940928	1993CN-0103720	19930327
CN 1034738	B	19970430		

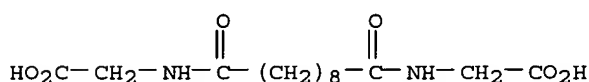
PRAI 1993CN-0103720

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CN 1092795	ICM	C09K-0003/00
	ICS	C02F-0005/12
	IPCI	C09K0003-00 [ICM,5]; C02F0005-12 [ICS,5]
	ECLA	C23F011/08

AB The title comps. contain Na N.N-sebacoyl di(Me glycinate) 3-6, decanol-ethylene oxide-propylene oxide copolymer 0.5-1, itaconic acid-acrylic acid copolymer 0.2-0.3, benzotriazole 0.2-0.5,

triethanolamine 22-25, Na molybdate 2-4, and water 60-69 weight%
 ST engine coolant additive corrosion prevention
 IT 95-14-7, 1H-Benzotriazole 102-71-6, Triethanolamine, uses 7631-95-0,
 Sodium molybdate 25948-33-8, Acrylic acid-itaconic acid copolymer
 37251-67-5, Ethylene oxide-propylene oxide copolymer monodecyl ether
 170370-13-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (composition; compns. for corrosion prevention and anti-scaling for
 water-cooling system of internal combustion engines)
 IT 170370-13-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (composition; compns. for corrosion prevention and anti-scaling for
 water-cooling system of internal combustion engines)
 RN 170370-13-5 HCAPLUS
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis-, disodium salt (9CI) (CA
 INDEX NAME)



● 2 Na

L36 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:69611 HCAPLUS
 DN 120:69611
 ED Entered STN: 19 Feb 1994
 TI Lipophilic derivatives of natural amino acids as antiobesity drugs
 IN Shinitzky, Meir
 PA Senyorina Ltd., Israel; Cohn, Michael
 SO PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K-0031/225
 ICS A61K-0031/195; C07C-0233/47; C07C-0237/22
 CC 1-10 (Pharmacology)
 Section cross-reference(s): 34

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO---9321913	A1	19931111	1993WO-EP01014	19930427
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
IL---101708	A1	19960804	1992IL-0101708	19920428
AU---9340626	A1	19931129	1993AU-0040626	19930427
EP---637958	A1	19950215	1993EP-0909847	19930427
EP---637958	B1	19970402		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP--07508719	T2	19950928	1993JP-0518907	19930427
JP---3666667	B2	20050629		
AT---150967	E	19970415	1993AT-0909847	19930427
CA---2134560	C	20020319	1993CA-2134560	19930427
US---5602164	A	19970211	1996US-0616948	19960318
PRAI 1992IL-0101708	A	19920428		
1993WO-EP01014	A	19930427		
1994US-0325422	B2	19941219		

✓ for salts
 ✓
 Teach. cl's 1-3

1995US-0524961 A1 19950908

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9321913	ICM	A61K-0031/225
	ICS	A61K-0031/195; C07C-0233/47; C07C-0237/22
	IPCI	A61K0031-225 [ICM,5]; A61K0031-195 [ICS,5]; C07C0233-47 [ICS,5]; C07C0237-22 [ICS,5]
IL----101708	IPCI	A61K0031-16 [ICM,6]; C07C0235-12 [ICS,6]
AU--9340626	IPCI	A61K0031-225 [ICM,5]; C07C0237-22 [ICS,5]; A61K0031-195 [ICS,5]; C07C0233-47 [ICS,5]
EP----637958	IPCI	A61K0031-225 [ICM,6]; A61K0031-195 [ICS,6]; C07C0233-47 [ICS,6]; C07C0237-22 [ICS,6]
JP--07508719	IPCI	C07C0237-22 [ICM,6]; A61K0031-195 [ICS,6]; A61K0031-215 [ICS,6]; C07C0233-47 [ICS,6]
	ECLA	A61K031/195; A61K031/215
AT----150967	IPCI	A61K0031-225 [ICM,6]; A61K0031-195 [ICS,6]; C07C0233-47 [ICS,6]; C07C0237-22 [ICS,6]
CA--2134560	IPCI	A61K0031-225 [ICM,5]; A61K0031-195 [ICS,5]; A23L0001-29 [ICS,5]
US--5602164	IPCI	A61K0031-415 [ICM,6]; A61K0031-40 [ICS,6]; A61K0031-235 [ICS,6]; A61K0031-24 [ICS,6]
	NCL	514/400.000; 514/419.000; 514/423.000; 514/532.000; 514/538.000; 514/547.000; 514/549.000; 514/550.000; 514/551.000; 514/556.000; 514/617.000; 514/619.000; 514/621.000; 514/626.000; 514/627.000; 514/909.000
	ECLA	A61K031/195; A61K031/215

OS MARPAT 120:69611

AB Obesity is treated by the administration of a lipophilic derivs. of natural amino acids R4(CH2)nCONR1CHR2COR3 [R1 = H, CH3; R2 = a side chain of a naturally occurring amino acid; R3 = OH, OCH2CH3, NH2; n = 6-18; R4 = CH3, R3COCHR2NR1CO- (R1, R2, R3= same as above)]. Hydroxy succinimide ester of palmitic acid in THF was mixed with sarcosine in aqueous Na2CO3 solution at 40° for 24 hs followed by evaporation of THF and acidification to obtain N-palmitoyl sarcosine (I). The antiobesity of 0.1% I in mice diet was shown.

ST lipophilic amino acid deriv antiobesity; palmitoyl sarcosine antiobesity drug

IT Antiobesity agents
(lipophilic derivs. of natural amino acids, preparation of)

IT Amino acids, compounds
RL: BIOL (Biological study)
(compds., lipophilic, antiobesity agents)

IT 2421-33-2P 109477-56-7P 152271-13-1P 152271-14-2P
152510-19-5P 152510-20-8P 152510-21-9P
152510-58-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(antiobesity drug, preparation of)

IT 23024-29-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with glycine)

IT 111-20-6, Decanedioic acid, biological studies
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxysuccinimide)

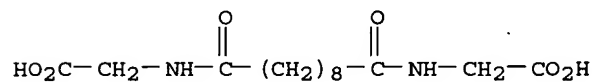
IT 107-97-1, Sarcosine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with palmitic acid hydroxy succinimide ester)

IT 14464-31-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sarcosine)

IT 6066-82-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sebacic acid)

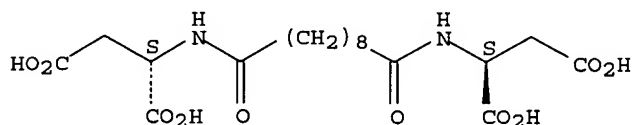
IT 56-40-6, Glycine, biological studies 70-47-3, L-Asparagine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with sebacoyl hydroxy succinimide)
 IT 109477-56-7P 152510-19-5P 152510-20-8P
 152510-21-9P 152510-58-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (antiobesity drug, preparation of)
 RN 109477-56-7 HCAPLUS
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



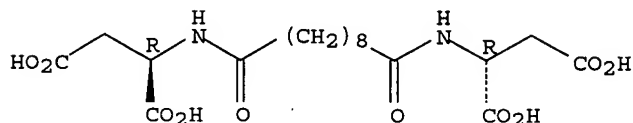
RN 152510-19-5 HCAPLUS
 CN L-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



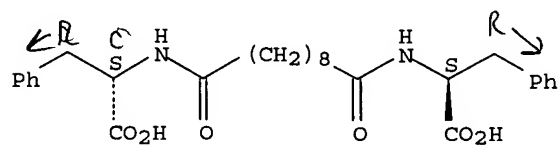
RN 152510-20-8 HCAPLUS
 CN D-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

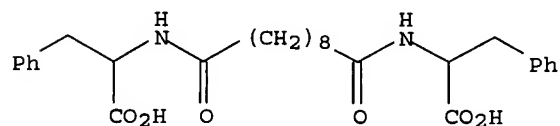


RN 152510-21-9 HCAPLUS
 CN L-Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

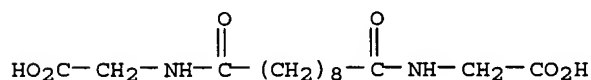
Absolute stereochemistry.



RN 152510-58-2 HCAPLUS
 CN Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:572062 HCAPLUS
 DN 117:172062
 ED Entered STN: 01 Nov 1992
 TI Synthesis and antistaphylococcal activity of dicarboxylic acid derivatives
 containing an amino acid fragment
 AU Grigoryan, N. A.; Mndzhoyan, Z. O.; Kazaryan, E. V.; Ter-Zakharyan, Yu.
 Z.; Mndzhoyan, O. L.
 CS Inst. Tonkoi Org. Khim. im. Mndzhoyana, Yerevan, Armenia
 SO Khimiko-Farmatsevticheskii Zhurnal (1992), 26(2), 43-5
 CODEN: KHFZAN; ISSN: 0023-1134
 DT Journal
 LA Russian
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 10
 AB Title compds. RCO(CH₂)_nCOR (R = Gly, Gly-OEt, n = 2-8; R = DL-α-Ala,
 Tyr, n = 2,6; R = GlyGly, n = 2,5,6) were prepared by acylation of the amino
 acid. The compds. were screened for antibacterial activity and toxicity.
 ST alkanedicarboxylic amino acid deriv prepn antibacterial; glycine
 alkanedicarboxylic deriv prepn antibacterial; alanine alkanecarboxylic
 deriv prepn antibacterial; tyrosine alkanedicarboxylic deriv prepn
 antibacterial
 IT Bactericides, Disinfectants, and Antiseptics
 (amino acid dicarboxylic acid derivs.)
 IT Molecular structure-biological activity relationship
 (bactericidal, amino acid dicarboxylic acid derivs.)
 IT 111-19-3, Decanedioyl dichloride 111-50-2, Hexanedioyl dichloride
 123-98-8, Nonanedioyl dichloride 142-79-0, Heptanedioyl dichloride
 543-20-4, Butanedioyl dichloride 2873-74-7, Pentanedioyl dichloride
 10027-07-3, Octanedioyl dichloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling of, with amino acids)
 IT 56-40-6, Glycine, reactions 60-18-4, L-Tyrosine, reactions 302-72-7,
 DL-α-Alanine 556-50-3, Glycylglycine 623-33-6, Glycine ethyl
 ester hydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling of, with dicarboxylic anhydrides)
 IT 36724-51-3P 91638-57-2P 91717-13-4P 92377-71-4P 92790-50-6P
 93144-30-0P 93262-15-8P 102817-61-8P 105172-43-8P 105172-44-9P
 105172-45-0P 109477-56-7P 135245-11-3P 143673-88-5P
 143673-89-6P 143673-90-9P 143673-91-0P 143680-74-4P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)
 (preparation and antibacterial activity of)
 IT 97073-86-4P 143673-92-1P 143673-93-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT 109477-56-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)
 (preparation and antibacterial activity of)
 RN 109477-56-7 HCAPLUS
 CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1965:472384 HCAPLUS
 DN 63:72384

OREF 63:13395b-c

ED Entered STN: 22 Apr 2001

TI Photochemistry of aromatic amino acids in boric acid

AU Santus, Rene; Guernonprez, Regis; Ptak, Marius

CS Museum Natl. Hist. Nat., Paris

SO Compt. Rend. (1965), 261(1(Groupe 7)), 117-20

DT Journal

LA French

CC 44 (Amino Acids, Peptides, and Proteins)

AB Irradiation of phenylalanine, tyrosine, and tryptophan in H₃BO₃ glass at 77°K. gave rise to absorption bands in the visible region of the spectrum, and decreased the intensity of phosphorescence after uv excitation. These changes are completely reversible on heating to 393°K. An E.P.R. signal attributable to H atoms appears on irradiation at 77°K., but disappears on warming to 100°K. An unidentified E.P.R. signal (g = 2.0036) persists up to 393°K.

IT Amino acids

(irradiation of, in presence of H₃BO₃)

IT Spectra, visible and ultraviolet

(of amino acids (irradiated) in presence of H₃BO₃)

IT Phosphorescence

(of tryptophan and tyrosine)

IT Magnetic resonance absorption

(of tyrosine (irradiated))

IT Radiation and Radiation effects

(on amino acids, in presence of H₃BO₃)

IT 10043-35-3, Boric acid

(amino acid irradiation in presence of)

IT 60-18-4, Tyrosine 63-91-2, Alanine, phenyl- 73-22-3, Tryptophan
(irradiation of, in presence of H₃BO₃)

L36 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1965:472383 HCAPLUS

DN 63:72383

OREF 63:13395a-b

ED Entered STN: 22 Apr 2001

TI Reaction between higher dicarboxylic acids and DL-alanine

AU Augustin, M.

CS Martin-Luther-Univ., Halle-Wittenberg, Germany

SO Zeitschrift fuer Chemie (1965), 5(8), 300-1

CODEN: ZECEAL; ISSN: 0044-2402

DT Journal

LA German

CC 44 (Amino Acids, Peptides, and Proteins)

OS CASREACT 63:72383

AB Mixed anhydrides prepared from higher dicarboxylic acids, ClCO₂Et, and Et₃N in tetrahydrofuran with DL-alanine gave 60-70% HO₂CCHMeNHCO(CH₂)_n-CONHCHMeCO₂H (n and m.p. listed); 8, 191-2°; 9, 175-6°, 10, 182-4°; 11, 140-4°.

IT Acids

(catalysts in polymerization, reactions of dicarboxylic, with DL-alanine)

IT Alanine, N-[N-[N-(N-docosanoyl-3-phenylalanyl)-isoleucyl]isoleucyl]-3-phenylalanyl]-, N,N'-dodecanedioyldi-

IT 3309-42-0, Alanine, N,N'-sebacoyldi- 3309-43-1, Alanine, N,N'-undecanedioyldi- 3514-02-1, Alanine, N,N'-tridecanedioyldi- (preparation of)

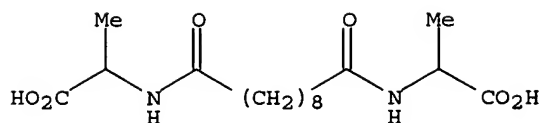
IT 302-72-7, Alanine, DL-

(reaction with dicarboxylic acids)

IT 3309-42-0, Alanine, N,N'-sebacoyldi- 3309-43-1, Alanine, N,N'-undecanedioyldi- 3514-02-1, Alanine, N,N'-tridecanedioyldi- (preparation of)

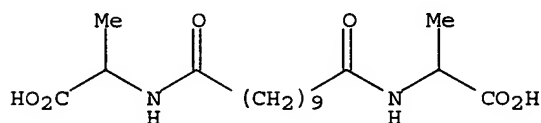
RN 3309-42-0 HCAPLUS

CN Alanine, N,N'-sebacoyldi-, DL- (8CI) (CA INDEX NAME)



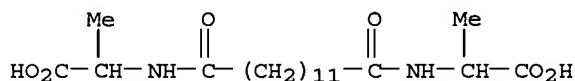
RN 3309-43-1 HCAPLUS

CN Alanine, N,N'-undecanedioyldi-, DL- (8CI) (CA INDEX NAME)



RN 3514-02-1 HCAPLUS

CN Alanine, N,N'-tridecanedioyldi- (7CI, 8CI) (CA INDEX NAME)



L36 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1959:122024 HCAPLUS

DN 53:122024

OREF 53:21885a-d

ED Entered STN: 22 Apr 2001

TI Hetero-chain polyamides. IX. Preparation of polyamides and polyamidoesters from bis(oxazolones)

AU Frunze, T. M.; Korshak, V. V.; Kozlov, L. V.

CS Inst. Heteroorg. Compds., Moscow

SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1959) 535-9

CODEN: IASKA6; ISSN: 0002-3353

DT Journal

LA Unavailable

CC 10G (Organic Chemistry: Heterocyclic Compounds)

AB cf. C.A. 52, 21216i. Reaction of bis(oxazolones) with diamines, glycols or amino alcs. yields polyamides or, resp., poly(amide esters). Reaction of 22.5 g. glycine in 150 ml. H₂O and 12 g. KOH and 35 g. K₂CO₃ with 30 g. sebacyl dichloride in 80 ml. dioxane at 0° gave 56%

N,N'-sebacylbis(aminoacetic acid), m. 200-2° (from H₂O); this

heated with Ac₂O gave 2,2'-octamethylenebis[5(4H)-oxazolone], m.

186-8°. Similarly, were prepared known 2,2'-p-phenylenebis[5(4H)-

oxazolone] (I) and 2,2'-p-phenylenebis[4-isobutyl-5(4H)-oxazolone (II) the

first of which with MeOH-NaOH gave di-Me ester of N,N'-

terephthaloylbis(aminoacetic acid), m. 148-50°. These were

condensed in pyridine or CHCl₃ with hexamethylenediamine, ethanolamine,

ethylene glycol, the reactions with glycol or amino alc. requiring heating

for 100 hrs. The products melted below 200°, except for the

polyamide from I and hexamethylenediamine which decompose 320°, the

polyamide from II and the above diamine (m. 280-6°) and amide ester

from II and ethanolamine (m. 200-5°). The thermomech. curves of

the products are shown. Heating 3 g. di-Meterephthalate and 1.79 g.

hexamethylenediamine with 4.05 g. leucine in cresol 7 hrs. at 230°

in N stream gave a polyamide, m. 200-20°, soluble in cresol. Heating

0.4 g. sebacyl acid, 0.52 g. leucine and 0.23 g. hexamethylenediamine 36

hrs. at 240° gave a polyamide, m. 150-60°, soluble in cresol.

IT Alcohols

(amino, reaction with 2,2'-alkylenebis(2-oxazolin-5-ones))

IT Amides

(extrusion masses of, heterochain)

IT Amines
(reactions of di-, with 2,2'-alkylenebis(2-oxazolin-5-ones))

IT Glycols
(reactions of, with 2,2'-alkylenebis(2-oxazolin-5-ones))

IT 497-24-5, 2-Oxazolin-5-one
(2,2'-alkylenebis, reaction with amino alcs., diamines and glycols)

IT 32669-30-0, 2-Oxazolin-5-one, 2,2'-p-phenylenebis[4-isobutyl-
47233-57-8, Glycine, N,N'-terephthaloyldi-, dimethyl ester 66561-16-8,
2-Oxazolin-5-one, 2,2'-p-phenylenebis- 100876-62-8, 2-Oxazolin-5-one,
2,2'-octamethylenebis- 109477-56-7, Glycine, N,N'-sebacoyldi-
(preparation of)

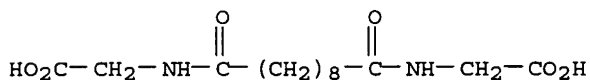
IT 107-21-1, Ethylene glycol
(reaction products of, with 2,2'-alkylenebis(2-oxazolin-5-ones))

IT 61-90-5, Leucine 111-20-6, Sebacic acid 120-61-6, Terephthalic acid,
dimethyl ester 124-09-4, 1,6-Hexanediamine 141-43-5, Ethanol, 2-amino-
(reaction products with 2,2'-alkylenebis(2-oxazolin-5-ones))

IT 109477-56-7, Glycine, N,N'-sebacoyldi-
(preparation of)

RN 109477-56-7 HCAPLUS

CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



L36 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1959:122023 HCAPLUS

DN 53:122023

OREF 53:21884g-1,21885a

ED Entered STN: 22 Apr 2001

TI Amino acetals with muscarine-like action

AU Fourneau, J. P.; Menin, Colette; Beauvillain, A.

CS Lab. Houde, Paris

SO Annales Pharmaceutiques Francaises (1958), 16, 630-8
CODEN: APFRAD; ISSN: 0003-4509

DT Journal

LA Unavailable

CC 10G (Organic Chemistry: Heterocyclic Compounds)

AB BrCH₂CH(OEt)₂ was allowed to stand with 1. equivalent diol and 5 drops concentrated HCl overnight, the alc. distilled, and the cyclic bromo-acetal fractionated in vacuo to give 83% 2-bromomethyl-4-methyldioxolane, b₄₂ 95-7°, and 80% 2-bromomethyl-4,5-dimethyldioxolane, b₃₃ 96-8°. Heating 1 mole of the latter bromo acetal in a sealed tube with 3.1 moles Me₂NPh as 33% solution in C₆H₆ 5 hrs. at 130°, filtering, washing with C₆H₆, distilling the excess Me₂NPh, dissolving the residue in dilute AcOH in the cold, washing with Et₂O with cooling, adding NaOH, extracting with Et₂O, drying, evaporating, and distilling in vacuo gave 65% 2-dimethylaminomethyl-4-methyldioxolane, b₃₃ 80-2°, and 73% 2-dimethylaminomethyl-4,5-dimethyldioxolane, b₃₂ 85°. MeI salts were prepared by adding excess MeI to the base in Me₂CO: 2-trimethylammoniummethyl-4-methyldioxolane iodide m. 134°; 2-trimethylammoniummethyl-4,5-dimethyldioxolane iodide m. 176°. The 1st of the ammonium compds. had a strong muscarine-like action, the 2nd was less potent.

IT Acetals
(amino, with muscarine-like action)

IT 300-54-9, Muscarine (alkaloid)
(-like substances, amino acetals of)

IT 69048-52-8, 1,3-Dioxolane, 2-(bromomethyl)-4-methyl- 69088-42-2,
1,3-Dioxolane, 2-(bromomethyl)-4,5-dimethyl- 100869-04-3,
1,3-Dioxolane-2-methylamine, N,N,4-trimethyl- 101259-01-2,
1,3-Dioxolane-2-methylamine, N,N,4,5-tetramethyl- 110358-24-2, Ammonium,
(4,5-dimethyl-1,3-dioxolan-2-ylmethyl)trimethyl-, iodide 118633-69-5,

Ammonium, trimethyl(4-methyl-1,3-dioxolan-2-yl-methyl)-, iodide
(preparation of)

=> b uspatall

FILE 'USPATFULL' ENTERED AT 14:56:14 ON 31 JAN 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 14:56:14 ON 31 JAN 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitrn hitrn l32 tot

L32 ANSWER 1 OF 4 USPATFULL on STN

AN 2000:142522 USPATFULL

TI Fibrous assembly of peptide lipid and method for the preparation thereof

IN Kogiso, Masaki, Tsukuba, Japan

Shimizu, Toshimi, Tsukuba, Japan

PA Japan as represented by Director General of Agency of Industrial Science
and Technology, Tokyo-to, Japan (non-U.S. corporation)

PI US---6136956

20001024

AI 1999US-0261156 19990303 (9)

PRAI 1998JP-0062548 19980313

DT Utility

FS Granted

EXNAM Primary Examiner: Low, Christopher S. F.; Assistant Examiner: Mohamed,
Abdel A.

LREP Wenderoth, Lind & Ponack, L.L.P.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 459

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a fine fibrous assembly having a molecular structure of a
bola-form peptide lipid containing L- or D-valine residues which can be
obtained by spontaneous crystallization precipitation when an aqueous
solution of the peptide lipid compound of the general formula ##STR1##
in which Me is a methyl group, the subscript m is 1, 2 or 3 and the
subscript n is a positive integer in the range from 6 to 18, in the form
of an alkali metal salt is kept standing over days under an atmosphere
of a saturated vapor over a dilute aqueous solution of a vaporizable
acid such as acetic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

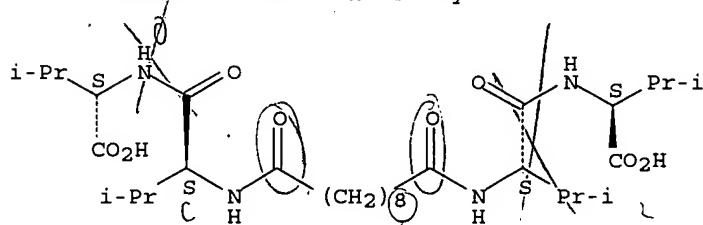
IT 214075-06-6

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under
acid vapors)

RN 214075-06-6 USPATFULL

CN L-Valine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[L-valyl- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



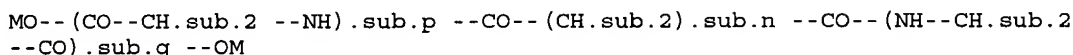
IT 214075-06-6 250266-83-2 250266-84-3

250266-85-4

(preparation of lipopeptide microfibrils in alkali hydroxide solns. under
acid vapors)

IT 214075-07-7P
(preparation of lipopeptide microfibrils in alkali hydroxide solns. under acid vapors)

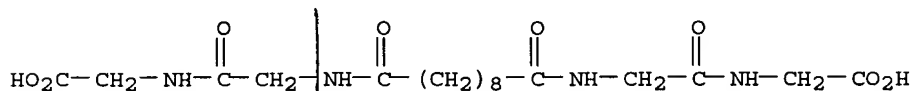
L32 ANSWER 2 OF 4 USPATFULL on STN
AN 2000:24314 USPATFULL
TI Oligoglycine compound, fibrous microtube of oligoglycine compound and process of producing fibrous microtube
IN Shimizu, Toshimi, Tsukuba, Japan
Kogiso, Masaki, Tsukuba, Japan
Masuda, Mitsutoshi, Matsudo, Japan
PA Director-General of Agency of Industrial Science and Technology, Japan (non-U.S. corporation)
PI US---6030640 20000229
AI 1998US-0184631 19981103 (9)
RLI Division of Ser. No. 1997US-0916375, filed on 22 Aug 1997, now patented, Pat. No. US---5876748
PRAI 1996JP-0227974 19960829
DT Utility
FS Granted
EXNAM Primary Examiner: Nutter, Nathan M.
LREP Lorusso & Loud
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 432
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A lipid represented by the following formula:



wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3 μm and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3 μm is formed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P
(preparation of oligoglycine fibrous microtubes)
RN 200282-87-7 USPATFULL
CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



IT 200282-87-7P 200282-88-8P
(preparation of oligoglycine fibrous microtubes)

L32 ANSWER 3 OF 4 USPATFULL on STN
AN 1999:65321 USPATFULL
TI Oligoglycine compound, fibrous microtube of oligoglycine compound and process of producing fibrous microtube
IN Shimizu, Toshimi, Tsukuba, Japan
Kogiso, Masaki, Tsukuba, Japan
Masuda, Mitsutoshi, Matsudo, Japan
PA Director-General of Agency of Industrial Science and Technology, Japan (non-U.S. corporation)
PI US---5910565 19990608

AI 1998US-0184632 19981103 (9)
 RLI Division of Ser. No. 1997US-0916375, filed on 22 Aug 1997, now patented,
 Pat. No. US---5876748
 PRAI 1996JP-0227974 19960829
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Nutter, Nathan M.
 LREP Lorusso & Loud
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
 LN.CNT 418
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A lipid represented by the following formula:

$$\text{MO--(CO--CH.sub.2 --NH).sub.p --CO--(CH.sub.2).sub.n --CO--(NH--CH.sub.2 --CO).sub.q --OM}$$

wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3 μm and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3 μm is formed.

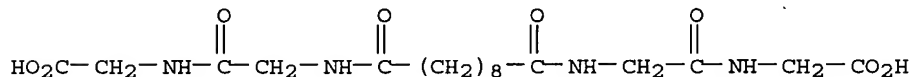
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P

(preparation of oligoglycine fibrous microtubes)

RN 200282-87-7 USPATFULL

CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



IT 200282-87-7P 200282-88-8P

(preparation of oligoglycine fibrous microtubes)

L32 ANSWER 4 OF 4 USPATFULL on STN

AN 1999:27215 USPATFULL

TI Fibrous microtube of oligoglycine compound

IN Shimizu, Toshimi, Tsukuba, Japan

Kogiso, Masaki, Tsukuba, Japan

Masuda, Mitsutoshi, Matsudo, Japan

PA Director-General of Agency of Industrial Science And Technology, Japan (non-U.S. corporation)

PI US---5876748 19990302

AI 1997US-0916375 19970822 (8)

PRAI 1996JP-0227974 19960829

DT Utility

FS Granted

EXNAM Primary Examiner: Nutter, Nathan M.

LREP Lorusso & Loud

CLMN Number of Claims: 8

ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 434

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A lipid represented by the following formula:

$$\text{MO--(CO--CH.sub.2 --NH).sub.p --CO--(CH.sub.2).sub.n --CO--(NH--CH.sub.2 --CO).sub.q --OM}$$

wherein M represents a hydrogen atom or an alkali metal, n is an integer of 6-18 and p and q each represent an integer of at least 1 with the proviso that a total of p and q is not greater than 6. When an aqueous solution of an alkali metal salt of the lipid is allowed to stand for 2-3 weeks, a fibrous microtube including a tubular body having a diameter of 1-3 μm and a plurality of spherical vesicles contained within the tubular body and having a diameter of 0.1-3 μm is formed.

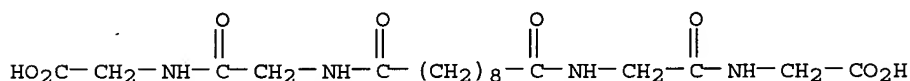
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 200282-87-7P

(preparation of oligoglycine fibrous microtubes)

RN 200282-87-7 USPATFULL

CN Glycine, 1,1'-(1,10-dioxo-1,10-decanediyl)bis[glycyl- (9CI) (CA INDEX NAME)



6

IT 200282-87-7P 200282-88-8P

(preparation of oligoglycine fibrous microtubes)

=> d bib abs hitstr l33 tot

L33 ANSWER 1 OF 1 USPATFULL on STN

AN 97:12502 USPATFULL

TI Anti-obesity drugs

IN Shinitzky, Meir, Kfar Shmaryahu, Israel

Shenfeld, Avner, Rehovot, Israel

PA Senyorina Ltd., Kfar Shmaryahu, Israel (non-U.S. corporation)

PI US---5602164 19970211

AI 1996US-0616948 19960318 (8)

RLI Continuation of Ser. No. 1995US-0524961, filed on 8 Sep 1995 which is a continuation-in-part of Ser. No. 1994US-0325422, filed on 19 Dec 1994, now abandoned

PRAI 1992IL-0101708 19920428

DT Utility

FS Granted

EXNAM Primary Examiner: Jordan, Kimberly

LREP Sprung Horn Kramer & Woods

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN 4 Drawing Figure(s); 4 Drawing Page(s)

LN.CNT 256

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Obesity is treated by the administration to a subject of a compound having the general formula (I): $\text{R.sub.4}--(\text{CH.sub.2})\text{.sub.n}--\text{CO--N(R.sub.1)--CH(R.sub.2)--CO--R.sub.3}$, wherein R.sub.1 represents H or CH.sub.3; R.sub.2 represents a side chain of a naturally occurring amino acid; R.sub.3 represents OH, OCH.sub.2 CH.sub.3 and NH.sub.2; n is 6-18; and R.sub.4 represents CH.sub.3 or a group having the general formula (II): $\text{R.sub.3}--\text{CO--CH(R.sub.2)--N(R.sub.1)--CO--}$, wherein R.sub.1, R.sub.2 and R.sub.3 have the above meanings. The compounds of formula (I) wherein R.sub.4 is a group of formula (II), are novel compounds.

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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

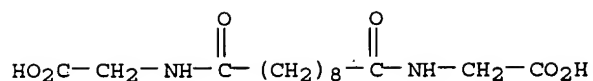
IT 109477-56-7P 152510-19-5P 152510-20-8P

152510-21-9P 152510-58-2P

(antiobesity drug, preparation of)

RN 109477-56-7 USPATFULL

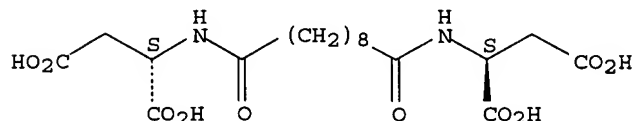
CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



RN 152510-19-5 USPATFULL

CN L-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

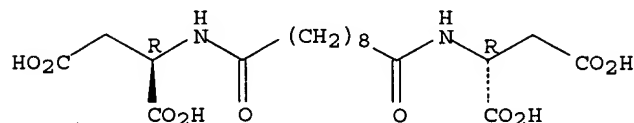
Absolute stereochemistry.



RN 152510-20-8 USPATFULL

CN D-Aspartic acid, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

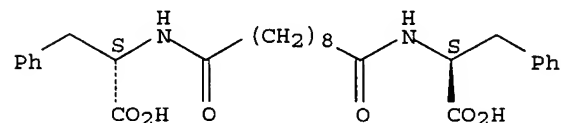
Absolute stereochemistry.



RN 152510-21-9 USPATFULL

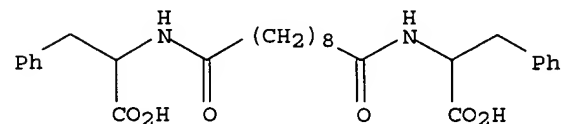
CN L-Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 152510-58-2 USPATFULL

CN Phenylalanine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



=> b hcao

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=> d all 134 tot

L34 ANSWER 1 OF 2 HCAOLD COPYRIGHT 2006 ACS on STN
AN CA63:13395b CAOLD
TI photochemistry of aromatic amino acids in H3BO3
AU Santus, Rene; Guernonprez. R.; Ptak, M.
IT 3309-42-0 3309-43-1 3309-44-2
3514-02-1

L34 ANSWER 2 OF 2 HCAOLD COPYRIGHT 2006 ACS on STN
AN CA53:21885a CAOLD
TI hetero-chain polyamides - (IX) preparation of polyamides and polyamidoesters from bis(oxazolones)
AU Frunze, T. M.; Korshak, V. V.; Kozlov, L. V.
IT 32669-30-0 47233-57-8 66561-16-8 100876-62-8 109477-56-7

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* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

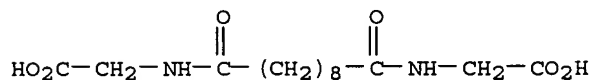
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predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

L37 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
RN 109477-56-7 REGISTRY
ED Entered STN: 25 Jul 1987
CN Glycine, N,N'-(1,10-dioxo-1,10-decanediyl)bis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycine, N,N'-sebacoyldi- (6CI)
FS 3D CONCORD
MF C14 H24 N2 O6
CI COM
SR CAOLD
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

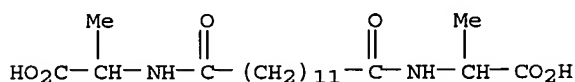
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REFERENCE 2: 120:69611

REFERENCE 3: 117:172062

REFERENCE 4: 53:122024

L37 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
RN 3514-02-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Alanine, N,N'-tridecanedioyldi- (7CI, 8CI) (CA INDEX NAME)
FS 3D CONCORD
MF C19 H34 N2 O6
LC STN Files: CA, CAOLD, CAPLUS

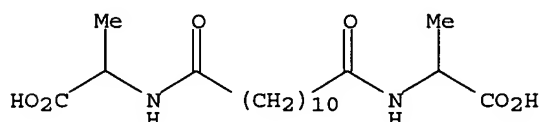


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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

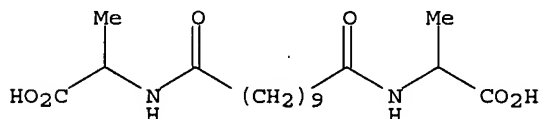
L37 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 3309-44-2 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Alanine, N,N'-(1,12-dioxo-1,12-dodecanediyl)bis- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Alanine, N,N'-dodecanedioyldi- (7CI)
 CN Alanine, N,N'-dodecanedioyldi-, DL- (8CI)
 MF C18 H32 N2 O6
 LC STN Files: CAOLD



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L37 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 3309-43-1 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Alanine, N,N'-undecanedioyldi-, DL- (8CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Alanine, N,N'-undecanedioyldi- (7CI)
 MF C17 H30 N2 O6
 LC STN Files: CA, CAOLD, CAPLUS

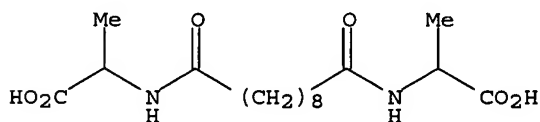


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

L37 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 3309-42-0 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Alanine, N,N'-sebacoyldi-, DL- (8CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Alanine, N,N'-sebacoyldi- (7CI)
 MF C16 H28 N2 O6
 LC STN Files: CA, CAOLD, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 63:72383

=> d his

(FILE 'HOME' ENTERED AT 13:52:44 ON 31 JAN 2006)

FILE 'HCAPLUS' ENTERED AT 13:53:27 ON 31 JAN 2006

L1 1 (US2005-530198# OR JP2003-160291# OR JP2002-293533# OR WO2003-J
E MATSUZAWA Y/AU
L2 106 E3
E MATSUZAWA YOKO/AU
L3 43 E3
E YOKO M/AU
E MATSUMOTO M/AU
L4 720 E3-4
E MATSUMOTO MUTSUYOSHI/AU
L5 221 E3
E MUTSUYOSHI M/AU
E KOGISO M/AU
L6 23 E3,E6
E MASAKI K/AU
L7 107 E3-4
E MASAKI KOGISO/AU
E SHIMUZI T/AU
E SHIMUZU T/AU
E SHIMIZU T/AU
L8 718 E3-5
E SHIMIZU TOSHIMI/AU
L9 213 E3
E TOSHIMI S/AU
L10 12696 (NATION? (L)ADV? (L)IND? (L)SCI?(L)TECH?)/CS,PA

FILE 'REGISTRY' ENTERED AT 14:02:29 ON 31 JAN 2006

FILE 'HCAPLUS' ENTERED AT 14:02:33 ON 31 JAN 2006

L11 TRA L1 1- RN : 3 TERMS

FILE 'REGISTRY' ENTERED AT 14:02:33 ON 31 JAN 2006

L12 3 SEA L11
L13 STR
L14 SCR 2009 AND 1993 AND 1313 AND 1701
L15 STR L13
L16 0 L15
SEL RN 1 L12
L17 1 E1 AND L12

FILE 'HCAPLUS' ENTERED AT 14:30:05 ON 31 JAN 2006

L18 8 L17
L19 8 L18 AND L1-10

FILE 'REGISTRY' ENTERED AT 14:30:37 ON 31 JAN 2006

L20 STR L15
L21 0 L20
L22 98 L15 FULL
L23 1 L22 AND L12

FILE 'HCAPLUS' ENTERED AT 14:34:10 ON 31 JAN 2006

L24 52 L22

L25 18 L24 AND L1-10
L26 34 L24 NOT L25
SEL HIT RN L26

FILE 'REGISTRY' ENTERED AT 14:34:48 ON 31 JAN 2006
L27 71 E2-72
L28 69 L27 NOT (COMPD OR COMPOUND)

FILE 'HCAPLUS' ENTERED AT 14:36:48 ON 31 JAN 2006

FILE 'REGISTRY' ENTERED AT 14:37:47 ON 31 JAN 2006
SEL RN 3-5 15-17 31-37 55 63 67-69
L29 18 E73-90 AND L28

FILE 'HCAPLUS' ENTERED AT 14:48:38 ON 31 JAN 2006
L30 10 L29 AND L26

FILE 'USPATFULL, USPAT2' ENTERED AT 14:49:44 ON 31 JAN 2006
L31 14 L22
SEL AN 7-10
L32 4 E91-94 AND L31
L33 1 L29 AND L31

FILE 'HCAOLD' ENTERED AT 14:52:29 ON 31 JAN 2006
L34 2 L22
SEL AN
EDIT /AN /OREF

FILE 'HCAPLUS' ENTERED AT 14:52:58 ON 31 JAN 2006
L35 4 E95-96
L36 12 L30,L35

FILE 'HCAOLD' ENTERED AT 14:53:39 ON 31 JAN 2006
SEL HIT RN L34

FILE 'REGISTRY' ENTERED AT 14:53:53 ON 31 JAN 2006
L37 5 E97-101

FILE 'REGISTRY' ENTERED AT 14:54:11 ON 31 JAN 2006

FILE 'HCAPLUS' ENTERED AT 14:54:33 ON 31 JAN 2006
L38 18 L19,L25

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